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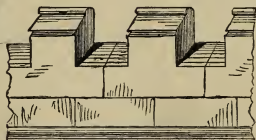
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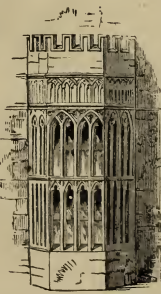
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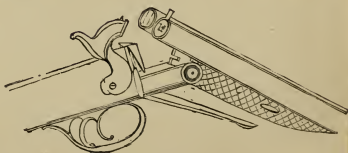
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BATTERING RAM.

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DICTIONARY OF LITERATURE
FINE ARTS AND AMUSEMENTS.

INCLUDING

ARCHITECTURE, BOOKS OF ALL NATIONS, HERALDRY, JOURNALISM,
MUSIC, MUSICAL INSTRUMENTS, PAINTING, SCULPTURE,
AND MANY OTHER SUBJECTS PERTAINING TO
CULTURE AND GENERAL INFORMATION.

ILLUSTRATED WITH SEPARATE FULL-PAGE PLATES ON TINTED PAPER.

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M. R. O. E. June 22, 25.

PREFACE.

THE present age has witnessed an unparalleled advance in general education and culture. The extraordinary multiplication of cheap books, the widespread establishment of public libraries, the universal enforcement of school attendance, the vast growth and great influence of the newspaper press, the bestowal of a share in the country's government on the masses, all are signs of one marked phenomenon, the increased intelligence of the public. This has its effect upon every person, whether it is perceived or not. It is impossible to go through life successfully without far more knowledge than was sufficient for our ancestors. In view of this spread of knowledge, every man must struggle to keep up with his fellows, and not fall behind them in those refinements of knowledge and cultivation, those graces of art, those pleasures, in fact, which make life so much more worth living to us than to those who have gone before.

Without books of reference, a man of intelligence lacks his most essential requisite. Every one now acknowledges that it is impossible to get on without comprehensive books from which the most condensed information on any subject of inquiry can be gathered. In no department is this more essential than in that of literature and the fine arts, wherein our present possessions are the result of many ages of accumulated thought and effort by many and widely separated nations. It is next to impossible to retain in the memory with accuracy all the multifarious details pertaining to literature and art, which yet it is desirable to have accessible at any moment, and in a form easy and convenient for reference. One great essential, in order that information may be readily and promptly utilised, is to have it conveniently arranged; and no form has hitherto been discovered comparable in this respect to that of the Dictionary. It is one of the numerous and great services rendered to us by the alphabet that it supplies a simple and easy mode of reference for Dictionary purposes; and the work which follows this Preface presents in this form a copious store of information on literature and languages, books and journals, drawing and painting, architecture, music, musical instruments, sculpture, and many other fine arts and literary subjects.

Aided by such a book as this, it will be found comparatively easy to gain a general knowledge of the history of English, French, German, Greek, and Latin

Literature, and to learn the characteristics of the several masterpieces by which they have been rendered famous. Moreover, the forms of literary composition and the technical terms connected with them are explained. The immense growth of modern journalism and printing is signalised by the large space devoted to subjects connected with them. A large amount of information is given on various languages, especially in their relation to literature.

In the Fine Arts, architecture, as the oldest of the great forms of art, occupies an appropriate position of importance. Greek, Roman, Byzantine, Gothic, and many other forms of architecture will be found as fully treated as space permits. The sister art of sculpture, the ancient arts of drawing and painting, the more modern one of music are largely dealt with.

The curious in heraldry will find here a solution of most of the difficult terms with which that science is beset. Archery receives due recognition both in its mediæval and its modern aspect. Cricket and football, our great national games, are clearly explained, together with other pastimes and recreations too numerous to mention.

Every effort has been made to ensure accuracy of information and a useful selection of subjects. It is confidently believed that very few, if any, topics of general or widespread interest in the subjects treated of, will be found to be omitted. But the proof of the utility of such a Dictionary lies in using it. Those who refer to it for any topic on which they desire information will find out for themselves the manifold uses to which it may be put, and the manifold interest which may be inspired in reading it for instruction recreation, or information.

BEETON'S

DICTIONARY OF LITERATURE, FINE ARTS, AND AMUSEMENTS.

A

A, the first letter of the alphabet in almost every known language (the only exceptions, probably, being the Ethiopic and the Runic; in the former of which it occupies the thirteenth and in the latter the tenth place). This, doubtless, is owing to the great simplicity of its sound, being most easily uttered. In the Phœnician and other Semitic alphabets, it represented a breathing rather than a clear vowel sound. The ancient form of the letter roughly represented the head of an ox, and it was named *aleph*, an ox. When the Greeks adopted the Phœnician alphabet the name changed into *alpha*. In the Continental and Oriental languages it varies less than in English, where it has at least four distinct sounds, known as the long or slender, the broad, the short or open, and the middle; as in *name*, *call*, *man*, *father*.

In *Grammar*, **A** is styled the indefinite article, and denotes one or any; as, *a* man. In *Music*, **A** is the major sixth of the scale of **C** major. In *Logic*, **A** denotes an universal affirmative proposition; and in *Algebra*, *a*, *b*, *c*, are used to represent known quantities, while the last letters, *x*, *y*, *z*, are generally taken to denote unknown quantities. As a *numeral*, among the Greeks, it denoted 1; and, with a mark under it, 1,000. With the Romans, **A** was 500; and, with a short horizontal line over it, 5,000. In trials of criminal causes among the Romans, **A** signified *absolvo*, I acquit; and was hence called *litera salutaria*, the saving letter. **A**₁ is a symbol by which first-class vessels—that is to say, vessels whose hull and equipments are in an efficient condition—are known and registered at Lloyd's. **A** indicates that the vessel is built in the best manner; 1, that the stores, anchors, cable, &c., are of the first quality. **AAA**, in Chemistry, signifies *amalgama*, to mix; and in Pharmacy, *a*, or *aa*, denotes that the proportions of the ingredients to which it refers are to be equal. **A** is frequently used as an abbreviation (see ABBREVIATION), and is the first of the DOMINICAL LETTERS.

ABAD, *a-bad'*, a dwelling or city, from the same root as the English "abode." An affix to some names of Persian origin, as Hyderabad, Jellalabad, &c.

ABASED, or **ABAISSE**, *a-baisé'* (lowered), in Heraldry, a term borrowed from the French, and applied to an armorial figure placed below the centre of the shield, and to the wings of eagles, &c., when the tip inclines downwards to the point of the shield, or when the wings are shut.

ABATEMENT, *a-baté'-ment*, in Heraldry, an accidental figure added to a coat of arms, to lessen its true dignity, and to indicate some stain in the character of the bearer.

ABBREVIATION

ABBOTSFORD CLUB, a printing club founded in 1834, for the purpose of reprinting rare works throwing light on the ancient history or literature of any country referred to by Sir Walter Scott. The club consisted of fifty-four members, and published thirty-four quarto volumes between 1835 and 1864.

ABBREVIATION, the contracting of a word or sentence, by omitting some of the letters or words, employing initial letters only, or substituting for words certain marks or characters. Abbreviations were much used by the earlier writers. The Greeks and Romans largely employed them, and, most of all, the Jewish rabbins. Roman numerals are really contractions, as **C** for *centum*, a hundred. At the present time they are chiefly confined to Christian names, titles, dates, and a few phrases. The following is a list of the more important abbreviations in common use:—

- A. Associate.
- A.A. Associate of Arts.
- A.B. Able-bodied Seamen.
- Abp. Archbishop.
- A.C. (*Ante Christum*). Before Christ.
- A.D. (*Anno Domini*). In the year of our Lord.
- Æt, or Ætat, Ætatis (*anno*). In the year of his age.
- A.E.R.A. Associated Engraver of the Royal Academy.
- A.H. (*Anno Hegiræ*). In the year of the Hegira.
- A.M. (*Ante meridiem*). Before noon.
- A.M. (*Anno mundi*). In the year of the world.
- A.R.A. Associate of the Royal Academy.
- A.R.S.A. Associate of the Royal Scottish Academy.
- A.U.C. (*Ab Urbe condita*). From the building of the city, i.e. Rome.
- B.A., or A.B. (*Artium Baccalaureus*). Bachelor of Arts.
- B.C. Before Christ.
- B.C.L. Bachelor of Civil Law.
- B.D. Bachelor of Divinity.
- B.M. Bachelor of Medicine.
- Bp. Bishop.
- B. Sc. Bachelor of Science.
- Bt., or Bart. Baronet.
- C. Chancellor.
- C.A. Chartered accountant.
- Cap. in legal language Chapter.
- C.B. Companion of the Bath.
- C.E. Civil Engineer.
- Cf. (*confer*). Compare.
- C.J. Chief Justice.
- C.M.G. Companion of the Order of St. Michael and St. George.
- Co. Company, used by Commercial firms.
- C.P.S. (*Custos Privati Sigilli*). Keeper of the Privy Seal.
- Cr. (in book-keeping) Creditor.
- Cwt. Hundredweight, the **C** a contraction of the Latin *centum*, wt. of the English "weight."
- D.C.L. Doctor of Civil Law.

D.D. Doctor of Divinity.
D.G. (*Dei gratia*). By the grace of God.
Do. Ditto. The same.
Dr. Doctor; debtor (in book-keeping).
12mo, Duodecimo; the size of a book, each sheet of which when folded consists of twelve leaves.
D.V. (*Deo volente*). God willing.
Dwt. Pennyweight—Latin, *denarius*, a penny.
E. East.
e.g. ex. gr. (*Exempli gratia*). For example.
Etc. (*Et cetera*). And the rest; and so on.
Ex. Example.
Fahr. Fahrenheit's thermometer.
F.A.S. Fellow of the Antiquarian Society.
F.B.S. Fellow of the Botanical Society.
F.C.S. Fellow of the Chemical Society.
F.D. (*Fidei Defensor*). Defender of the Faith.
F.G.S. Fellow of the Geological Society.
F.L.S. Fellow of the Linnean Society.
F.M. Field-marshal.
Fo. Folio; the size of a book, each sheet of which has two leaves.
F.R.A.S. Fellow of the Royal Astronomical Society.
" " Fellow of the Royal Asiatic Society.
F.R.C.P. Fellow of the Royal College of Physicians.
F.R.C.S. Fellow of the Royal College of Surgeons.
F.R.G.S. Fellow of the Royal Geographical Society.
F.R.S. Fellow of the Royal Society (L. London, E. Edinburgh).
F.R.S.A. Fellow of the Royal Society of Arts.
F.S.A. Fellow of the Society of Antiquaries.
F.S.S. Fellow of the Statistical Society.
G.C.B. (Knight) Grand Cross of the Bath.
G.C.H. (Knight) Grand Cross of Hanover.
G.C.M.G. (Knight) Grand Cross of St. Michael and St. George.
G.P.O. General Post Office.
Gr. Greek.
H.I.M. His or Her Imperial Majesty.
H.M.S. Her or His Majesty's service or ship.
H.R.H. His or Her Royal Highness.
Ib. or Ibid. In the same place.
Id. (*Idem*). The same.
Id. (*Id est*). That is.
I.H.S. (*Jesus Hominum Salvator*). Jesus the Saviour of men. The original form of this contraction was IHΞ, the first three letters of the Greek name for Jesus; but that was lost sight of and the characters were modified into the initials of Latin words.
I.H.S. (with a cross over the H) (*In hac [Crux] Salus*). In this (Cross) salvation.
Incog. (*Incognito*). Unknown.
I.N.R.I. *Jesus Nazarenus Rex Iudæorum*, Jesus of Nazareth, King of the Jews. The initials of the inscription placed on the Cross by Pontius Pilate.
Inst. (*Instante*). Instant, of the present month.
J.P. Justice of the Peace.
J.V.D. (*Juris utriusque Doctor*). Doctor of Civil and Canon Law.
K.B. Knight of the Bath.
K.C.B. Knight Commander of the Bath.
K.C.H. Knight Commander of the Order of Hanover.
K.C.M.G. Knight Commander of St. Michael and St. George.
K.G. Knight of the Garter.
K.H. Knight of Hanover.
K.M. Knight of Malta.
K.P. Knight of St. Patrick.
K.S.I. Knight of the Star of India.
K.T. Knight of the Thistle.
Lat. Latitude.
Lb. (*Libra*). Pound.
LL.B. (*Legum Baccalaureus*). Bachelor of Laws.
LL.D. (*Legum Doctor*). Doctor of Laws.
Loco. In the place cited.
Log. Logarithm.
Long. Longitude.
L.R.C.S. Licentiate of the Royal College of Surgeons.
L.S. (*Locum sigilli*). The place of the seal.
L.S.A. Licentiate of the Society of Apothecaries.
L.S.D. (*Libra, Solidi, Denarii*). Pounds, shillings, pence.
M.A. or A.M. (*Artium Magister*). Master of Arts.
M.D. (*Medicina Doctor*). Doctor of Medicine.
Messrs. (*Messieurs*). Gentlemen.
M.P. Member of Parliament.
M.R.C.S. Member of the Royal College of Surgeons.
M.R.I.A. Member of the Royal Irish Academy.

MS. Manuscript.—MSS. Manuscripts.
Mus.D. (*Musicæ Doctor*). Doctor of Music.
Mus.B. Bachelor of Music.
M.W.S. Member of the Wernerian Society.
N. North.
N.B. (*Nota bene*). Mark well; observe; North Britain (Scotland).
Nem. con. (*Nemine contradicente*). Nobody contradicting; unanimously.
Nem. Diss. (*Nemine dissidente*). Nobody dissenting.
No. (*Numero*). Number.
N.P. Notary public.
N.S. New style.
N.T. New Testament.
8vo. Octavo. The size of a book, having eight leaves to a sheet.
O.H.M.S. On Her Majesty's Service.
O.S. Old Style.
O.T. Old Testament.
Oxon. (*Oxoniensis*). Of Oxford.
oz. Ounce.
p. Page.—pp. Pages.
P.C. Privy Councillor.
Per ann. (*Per annum*). By the year.
Per cent. (*Per centum*). By the hundred.
Ph. D. (*Philosophiæ Doctor*). Doctor of Philosophy.
Pinx. (*Pinxit*). He painted it.
P.M. (*Post meridiem*). After noon.
P.O.O. Post Office order.
P.P. Parish priest.
P.P.C. (*Pour prendre congé*). To take leave.
P.R.A. President of the Royal Academy.
Pro tem. (*Pro tempore*). For the time.
Prox. (*Proximo*). In the next (month).
P.S. (*Post scriptum*). Written after; postscript.
P.T.O. Please turn over.
4to. Quarto. The size of a book, having four leaves to a sheet.
Q. Query, or Question.
Q.C. Queen's Counsel.
q.d. (*Quasi dictum*). As if it were said.
Q.E.D. (*Quod erat demonstrandum*). Which was to be demonstrated.
Q.E.F. (*Quod erat faciendum*). Which was to be done.
Qr. Quarter.
Q.S. (*Quantum sufficit*). Enough.
q.v. (*Quod vide*). Which see.
R. (*Rex or Regina*). King or Queen.
R.A. Royal Academician. Royal Artillery.
R.A.M. Royal Academy of Music.
R.E. Royal Engineers.
Reg. Prof. Regius Professor.
Rev. Reverend.
R.I.P. (*Requiescat in pace*). May he rest in peace used by Roman Catholics, when announcing a death.
R.M. Royal Marines.
R.N. Royal Navy.
Rp. or R. (*Recipe*). Take.
R.S.A. Royal Scottish Academician.
R.S.V.P. (*Répondez s'il vous plaît*). Reply, if you please.
Rt. Hon. Right Honourable.
R.W.M. Right Worshipful Master.
S. South. The High Church party use this contraction for Saint, as S. Peter.
Sc. (*Scilicet*). Namely.
Sculp. or Sc. (*Sculptit*). He engraved it.
S.P.Q.R. (*Senatus Populusque Romanus*). The Senate and people of Rome.
S.P.G. Society for the Propagation of the Gospel.
Sq. (*Sequens*). The following; plural, Sqq.
St. Saint.
S.T.P. (*Sanctæ Theologiæ Professor*). Professor of Theology.
T.C.D. Trinity College, Dublin.
Ult. (*Ultimo*). In the last (month).
U.P. United Presbyterian.
U.S. United States, United Service.
V. (*Versus*). Against.
V.C. Victoria Cross.
Viz. (*Videlicet*). To wit; namely.
V.R. (*Victoria Regina*). Victoria the Queen.
W. West.
W.S. Writer to the signet (Scotland).
Xmas. Christmas. The X is a Greek letter corresponding to Ch, and indicates the name of Christ.
Xtian. Christian.

Ye, Yt. The, that. The Anglo-Saxon character equivalent to the modern *th* slightly resembled the black letter *y* in form, and in course of time that letter was substituted for it. The use of it now is mere affectation.

&c. (et). And.

&c. (et cetera). And so forth.

Scientific Abbreviations.—Most of the sciences have signs and abbreviations peculiar to themselves, initials being generally employed. Thus, in chemistry H stands for hydrogen and O for oxygen; and in botany and zoology, when the generic name has once been given, the initial only is prefixed to the name of the particular species—as, for instance, “There are three species of *Diomedea* (albatross), the *D. cuculans*,” &c.

Episcopal Abbreviations.—An archbishop, or bishop, in writing his signature, substitutes for his surname, the Latin name of his see, in an abbreviated form, as A. C. Cantuar (Canterbury), W. Ebor (York), &c.

Postal Abbreviations.—London is divided into postal districts, designated by initials:—N. North, to South, E.C. East Central, W. West, E. East, W.S. West Central, S.E. South-East, S.W. South-West, N.W. North-West.

American Abbreviations.—The names of the States of the American Union are in some instances abbreviated by using only the initial and final letter, as Va. for Virginia, Me. for Maine, Ga. for Georgia, Vt. for Vermont, and Pa. for Pennsylvania. In other instances the initials are given, as N. Y. for New York, and N. J. for New Jersey. The first syllable is also employed, as Miss. for Mississippi, Mass. for Massachusetts, Fla. for Florida, Ark. for Arkansas, and Car. for Carolina. Mo. for Missouri, is an exceptional abbreviation.

ABBREVIATORS, a body of seventy-two writers, of whom twelve must be of episcopal rank, employed in the Papal Chancery to draught the Pope's bulls, consistorial decrees, and other important doctrines. There are three grades, and in the lower rank laymen are employed.

ABC CLUB, the punning name (founded on the French word *abaissé*, depressed) of a club established in 1832, in Paris, professing to relieve the victims of oppression. An outbreak encouraged by the Club took place in June, and was repressed with bloodshed.

ABD, in Arabic, “a servant,” forms part of many proper names, in connection with the Divine name, or Abd-Allah (commonly printed in one word) “servant of God,” and Abd-el-Kader, “servant of the Great God.”

ABER, *a'-ber*, a Celtic word, meaning the place where a river discharges into the sea or into another river, and is a common prefix to names of towns in Scotland and Wales, as Aberdeen and Aberystwith.

ABLATIVE, *ab'-la-tiv* (Lat., *ablatus*, taken away), the name given to the sixth case of nouns in Latin; so called from its implying “taking from,” or “carrying away.” It answers the question, “By whom?” or “By what?” The *ablative absolute* is applied to a noun occurring with a participle, independent of any other part of the sentence, and hence put in the ablative.

ABORIGINES, *ab'-o-rig'-i-nes*, from the Latin *aborigine*, “from the beginning,” the earliest known inhabitants of a country; the name was given, as a proper name, to the inhabitants of the ancient Latium, the country now known as the Campagna di Roma, in Italy.

ABRACADABRA, *ab-ra-ka-dab'-ra*, one of the names given to the Persian sun-god Mithra. The word was formerly believed to have the power of curing diseases, especially slow and intermittent fevers. To accomplish this, the word was to be

written many times in the form of a magical triangle, in one or other of the following ways:—

ABRACADABRA	
ABRACADABR	
ABRACADAB	
ABRACADA	ABRACADABRA
ABRACAD	BRACADABR
ABRACA	RACADAB
ABRAC	ACADA
ABRA	CAD
ABR	A
AB	
A	

It was to be worn on the bosom for nine days, and then thrown into a stream flowing eastward. In modern times the term is for the most part used only in jest, without any particular meaning, like *hocus-pocus*.

ABRAHAM ERA. (See ERAS.)

ABRAHAM MEN, a name given in the sixteenth and seventeenth centuries, in England, to sturdy beggars, who wandered about the country, pretending to be lunatics, and, either from terror or pity, obtaining money. In modern slang, the memory of these mendicants survives in the phrase, “Abram cove,” or “shamming Abraham,” applied to beggars who feign sickness.

ABSORBENT GROUND, a term given in Painting to a water-colour mixture, which is laid upon the canvas or wood, and which, upon the oil-colours being applied, at once imbibes the oil, leaving the colours in which the design is made dry and brilliant.

ABSTRACT, *ab'-stract*, a small draft or epitome of any greater work; a short draft of an original writing, deed, book, &c.

ACADEMY, *a-kad'-e-me*, was the name of a place in the northern suburbs of Athens, about a mile from the Dypilum gate, and said to have been so called after Academus or Ecademus, an ancient hero. It was laid out with walks and groves and fountains by Cimon, the son of Miltiades, and by him bequeathed as a pleasure-ground for the Athenian citizens. It became a favourite resort of the lovers of meditation and philosophy, and hither Socrates was wont occasionally to repair to converse with his disciples. But it is chiefly in connection with Plato (who possessed a small estate in the neighbourhood) and his philosophy that the place has become famous. He taught here for about fifty years, till his death, 348 B.C., and his pupils were termed Academics. In modern times, the term “academy” has come to have a somewhat different signification from that which it bore in ancient times. It is generally applied to a society of learned men, formed for the cultivation of science, literature, or the arts, or to a school for the study of special subjects, instruction in which is afforded by eminent professors appointed for the purpose. Such schools are generally established by charter, and have special privileges, in that respect differing from private scholastic establishments which assume the name. In the literary and scientific academies of the highest class, as the French Academy and the Imperial Academy of Sciences at St. Petersburg, new members are elected, and a membership is considered to be a guarantee of great attainments and a high honour. The Royal Academy of Arts in this country consists of forty full members, all artists of eminence, and a number of associates, both classes being elected by the votes of members; and it adds a school for the education of art pupils, conducted by specially

appointed professors, who deliver public lectures and confer scholarships and rewards. The Royal Academy of Music is a specimen of the second order of academies, being a teaching institute only.

A CAPELLA, *ka-pel'la*, in Music, means "the Church style," and is equivalent to *alla breva*, a time signature which frequently appears in Church music. It also denotes that the instruments are to play in unison with the voices, or that one part is to be played by a number of instruments.

ACATALECTIC, *a-kat-a-lek'tik*, a term applied in ancient poetry to such verses as have all their feet and syllables without any defect at the end; those which are not so, being called *catalectic*.

ACATHISTUS, *a-ka-this'tus*, a hymn in honour of the Virgin, sung in the ancient Greek Church.

ACCALIA, *ak-kai'le-a*, festivals held among the Romans in honour of Acca Laurentia, the nurse of Romulus.

ACCENT, *ak'sent* (Lat., *ad*, to, and *cano*, I sing), is the stress of the voice in pronouncing certain syllables of words. There are three kinds of accents—viz., the acute, the grave, and the circumflex. The acute accent, marked thus (´), shows that the voice is to dwell on the syllables over which it is placed. The grave accent is marked thus (`), and points out when the voice ought to be lowered. The circumflex accent is compounded of the other two, and marked thus (ˆ), it denotes a quavering of the voice between high and low. Accents were first introduced in the Greek language by Aristophanes of Byzantium, about 265 B.C., and were first used by the French early in the 17th century.

Accent and Quantity.—Accent is not identical with quantity, that is the length or shortness of vowels sounds or syllables, but in metrical composition it sometimes modifies it.

Accent and Emphasis.—These are not identical; the former being fixed, the latter depending on the value of the words in their relation to others. (See **EMPHASIS**.)

Accented Syllables.—On many words of three or more syllables, there is a double accent, one being less marked than the other, as in "epi'cur'ean," in which the doubled accent-mark shows the syllable on which greater stress is to be laid.

Grammatical Accent.—Many words change their grammatical value, without any variation of spelling, when the accent is shifted. A noun becomes a verb, as "torment" and "torment," "perfume" and "per-fume"—an adjective is changed into a verb, as "fré-quent" and "frequent," or into a noun as "compáct" and "com pact;" and in some instances the meaning of the word is changed—"to conjure" is one thing, "to conjure" quite another.

In Music, accent consists of a stress laid upon certain notes—not a lengthening. As a rule, the first note of every bar is accented; and accent is also employed as a means of expression.

ACCIDENT, *ak'se-dent* (Lat., *accidens*, falling), denotes, in a general sense, any casual event, or, in more philosophical language, an attribute of a thing, or class of things, which neither belong to, nor is in any way deducible from, the essence of that thing or class.

In Logic, it signifies—1. Whatever does not essentially belong to a thing; 2. Such properties in any subject as are not essential to it; 3. In opposition to substance, all qualities whatever are called accidents; as sweetness, softness, hardness, &c.

In Grammar, accident implies a property attached to a word without entering into its essential definition.

In Heraldry, it is in coat-armour an additional mark.

which may be omitted without effecting any change in the dignity.

In Music, occasional sharps, flats, and naturals, placed before notes for the sake of expression.

In Optics, *Accidental colours* are those which depend on the affections of the eye. The term is applied to the ocular spectrum, which is generally perceived after the eye has been for some time steadily fixed upon a coloured object. Thus, if we look for some time upon a yellow piece of cloth, and suddenly turn the eye from it, we will see the colour of indigo; red will give a bluish green, and so on. These colours are also called complementary colours, because, when taken in conjunction with those of the spectrum, they make up all the colours of a white light.

In Design, the *Accidental point*, in perspective, is that point in the horizontal line where the projections of parallel lines meet the perspective plane.

ACCLAMATION, *ak-la-mai'shun* (Lat., *ac-clamatio*), among the ancient Romans, a shouting in concert, expressive of their public approbation of the conduct of their princes or generals. The acclamations of the theatres, at first rude and tumultuous shouts, became, in process of time, a species of regular concert. When Nero played in the theatre, a signal was given, upon which 5,000 soldiers began to chant his praises, which the spectators were obliged to repeat.

In Archæology, the term is applied to those medals on which the people are represented as expressing their joy.

Vote by Acclamation.—In ecclesiastical councils vote by acclamation is common. The question is usually put in the form, *Placet? or Non placet?*

ACCOMMODATION, in Biblical criticism, denotes the presentation of a truth not absolutely as it is in itself, but relatively or under some modification, with the view of adapting it to some other truth or to the person addressed.

Formal Accommodation refers to the method of teaching by parables, by the application of prophecy to secondary fulfillments, &c.

Material Accommodation includes speaking in accordance with contemporary ideas rather than with absolute truth.

ACCOMPANIMENT, *ak-kum'-pan-e-ment* (Fr., *accompagner*), in Music, denotes the instruments which, in the subordinate part or parts, accompany the voice, either to give it fulness or relief, and to heighten the general effect. The piano and guitar are suitable instruments for the accompaniment of a song. In a concerto, the instrument for which the principal part is composed is accompanied by the whole of the band.

In Heraldry, it denotes anything added to a shield by way of ornament, as the belt, mantling, supporters, &c. Accompaniment is also used for several bearings about a principal one, as a saltier, bend, fess, &c.

ACCORDION, *ak-kor'-de-an*, a musical instrument manufactured principally in Germany and in France, and introduced into England from Germany in 1828. It consists of an oblong box, of from eight to twenty inches in length, with an inside row of small elastic springs, or laminae, fixed in a metallic plate at one end, in such a manner as to allow them to vibrate freely. A bellows, or folding apparatus, unites the upper and lower parts, and supplies the springs with the necessary air to put them in motion. To these the air is admitted by valves, which, in the same manner as in an organ, are acted on by the keys. A base note, or drone, is also added. Previous to the introduction of the principle of this instrument to Europe, it was well known to the Chinese.

ACCROCHÉ, *ak-ro'-shai*, in Heraldry, denotes a thing being hooked into another.

ACCUSATIVE CASE, *ak-ku'-sa-tiv*, in Grammar, the case, governed by an active verb or preposition; as in, I love *him*; where *him* is the accusative of the pronoun *he*, and is governed by the verb *love*. It more peculiarly belongs to the Latin language, but has been introduced to the English. It comes after all prepositions, and is usually termed the objective case. (See GRAMMAR.)

ACE, *aise* (Lat., *as*, a unit), in games, signifies that side of the dice whereon one is marked. In playing cards, it denotes those which bear only one figure; as, for example, the "ace of hearts," which displays but one heart. In some card games, it counts as one; in whist, it is the highest of the "honours."

ACHIEVEMENT, *a-sheev'-ment* (Fr., *achievement*, to accomplish), in Heraldry, is a term applicable to the shield of armorial bearings generally, as the heraldic symbols or badges depicted on it were originally the marks of some great achievement of the bearer. The term, however, is now commonly applied to the funeral achievement (or "hatchment") of a deceased person, affixed against the dwelling-house. It is in the form of a lozenge, with the arms of the deceased, single or quartered, in the centre. (See HATCHMENT.)

ACME, *ak'-me* (Gr., *akme*, a point), the top or highest point of anything. Physicians use it to express the utmost violence or crisis of a disease; and in Rhet., it denotes the highest point of pathos, to which the mind is conducted by a series of impressions gradually rising in intensity.

ACOLGY, or AKOLGY, *a-kol'-o-je* (Gr., *akos*, a remedy, and *logos*, a discourse), a term signifying the doctrine of remedies, or of the *materia medica*.

ACROBAT, *ak'-ro-bat* (Gr., *akron*, an extremity, and *baino*, I go, meaning literally, I walk on my toes), a name given by the ancients to rope-dancers, vaulters, &c. Acrobats perform both upon the tight and slack rope, or upon ropes placed horizontally, perpendicularly, or obliquely, and the performance of their feats requires great strength, agility, and fearlessness. The term is commonly extended to somersault-throwers and performers on the trapeze.

ACROLITHS, *ak'-ro-liths* (Gr., *akron*, extremity, and *lithos*, stone), in ancient Greek Sculpture, signified those statues the heads, arms, and feet of which were of stone, the trunk of the figure being of wood. The wood was concealed by gilding, or more commonly drapery. According to Trebellius Pollio, Calpurnia caused an acrolithan statue of Venus to be executed. There was also an acrolithan statue of Mars in the temple of that god at Helicarnassus; and the Minerva Areia of the Plateans was a famous statue of this kind.

ACROSTIC, *a-kros'-tic* (Gr., *akros* and *stichos*, a verse), a poetical composition, disposed in such a manner that the initial letters of each line, taken in order, form a person's name or other complete word or words. By some authorities it is held to have been invented in the 4th century. This kind of poetical trifling was very popular with the French poets from the time of Francis I. until Louis XIV. Among other English writers, Sir John Davies, who lived in the 16th century, amused himself in this way. He produced twenty-six pieces, called "Hymns to Astrea," each of them forming an acrostic upon the words Eliza-

betha Regina. In the Old Testament there are twelve Psalms which, in the original, were written according to this principle. Of these, the 19th Psalm is the most remarkable: it consists of twenty-two stanzas, each of which commences with a Hebrew letter, and is called by its name. Hymns composed on the same principle, and known as Abecedarian, or alphabetical hymns, were at one time used for the purpose of aiding the memory.

Double and Triple Acrostics.—In the more elaborate forms of acrostic, the initials, finals, and even in some cases the central letters of each line form words. In these instances the lines usually consist of a single word, and rhymes are not required. The difficulty of constructing a verse, with rhymes, so as to form a double or a triple acrostic is very great, but the achievement scarcely rewards the labour bestowed.

Puzzle Acrostics.—These have been very much in vogue of late years, and in many of the popular periodicals prizes have been offered for correct solutions. In these, words are enigmatically indicated, the first and last letters of which form other words that are also to be guessed. The puzzle generally assumes a versified form, and each indication of a particular word is known as a "light." The first couplet or stanza gives a clue to the two words formed of the initials and finals; the "lights," to each word required. A short specimen will suffice to show the form of the puzzle:—

"A puzzle is this of a very slight kind,
As expressed by the words which in answer you find.

I.

This way to-day—which to-morrow, who knows?
Ever changing, but constant to each wind that blows.

II.

Closely packed with all knowledge—a wonderful book,
If you seek for its title, not far need you look.

III.

He was asked, Shakspeare tells us, if Scotland had moved
A very odd question, and painful it proved.

IV.

A time of the past, which, though ages have rolled,
Is as near to us now as to people of old."

The four words required are Vane, Encyclopædia, Ross, and Yesterday, the initials and finals of which form the words, "very easy."

ACT, in dramatic literature, the division or part of a play. With the ancient writers, it was held that a play should be divided into five parts or acts, neither more nor less, and that each act should mark some definite step in the development of the plot. Shakspeare invariably followed this rule, and, after the Elizabethan period, writers for the stage, until modern times, paid implicit obedience to it. Few pieces, either of a serious or humorous character, are now constructed on this model, which frequently involved tediousness; and many of the most effective productions of modern days have had no more than three acts. As in the Greek drama, the stage was never left empty from the beginning to the end of a performance, there were no acts. The chorus, during the absence of other actors, kept the stage, and continued the drama by their songs, which mostly formed an essential part of it, and carried on the action in the same way as the dialogue did. (See DRAMA.)

ACTA CONSISTORII, *con-sis-to'-re-i*, the edicts of the Consistory, or Council of State of the Roman emperors.

ACTA DIURNA or SENATUS, *ak'-ta di-ur'-na* (Lat., daily proceedings), the title of a kind of public journal which Julius Cæsar ordered to be drawn up and published. It contained a record of the proceedings of the senate and the

people, and therefore formed a species of Roman newspaper. The *Acta* continued to be published until the reign of the emperor Julian.

ACTA MARTYRUM, *ak'-tyr-um*, "Acts of the Martyrs," a collection of the lives of Christian martyrs. The most noted edition is that of Reimart (Paris, 1689), commemorating the martyrs of the first four centuries.

ACTA ERUDITORUM, *e-ru-di-to'-rum*, "Acts of the Learned," the name of a literary journal founded at Leipsic in 1682 by Otto Mencke, and others, and written in Latin. It had a high reputation, and was continued until 1782. The whole collection is contained in 117 quarto volumes.

ACTA SANCTORUM, *sanc-to'-rum*, the "Acts of the Saints," a title given to a collection of legends and biographies began in the seventeenth century, by Heribert Roswey, a Jesuit of Antwerp, and continued to our own times by other members of the order. The lives are arranged in the order of the calendar.

ACTIAN GAMES, *ak'-ti-an*, instituted by the Roman emperor Augustus, in commemoration of his victory over Marc Antony, at Actium, B.C. 31, by which he secured the possession of the Roman empire. They were celebrated every fifth year.

ACTION, *ak'-shun* (Lat., *ago*, I act), a term used in Mech. and Phys. to imply the pressure or percussion of bodies against each other. Action and reaction are equal; i.e., the resistance of the body put in motion is equal to the force communicated to it.

Action, in *Oratory*, is the outward deportment of the speaker, or the accommodation of his countenance, voice, and gestures to the subject of which he is treating. In *Physiology*, it is applied to the functions of the human body, whether vital, animal, or natural; in *Painting and Sculpture*, the attitude or position of the several parts of the body, as indicative of passion, &c.; in the *Military Art*, an engagement between opposing forces: hence, the terms partial action, general action, &c.

ACTIVE, *ak'-tiv*, denotes something which communicates action or motion to another, in opposition to passive, which receives action. Active verbs in grammar not only signify doing or acting, but are followed by nouns, to which their action passes. (See **VERB**.)

ACTOR, *ak'-tor*, one who performs a part or character in a play. Among the ancient Greeks, actors were so highly esteemed as sometimes to be sent on embassies, and authors frequently performed in their own plays; but at Rome, if a person became an actor, he forfeited his right of voting as a Roman citizen. In England, actors were at first the servants of the higher nobility; and, when regular theatrical companies came to be formed, they placed themselves under the protection of some distinguished person. To this day, the players at the Drury Lane Theatre continue to style themselves "her Majesty's servants." Until after the Restoration, the female parts in each drama were performed by men. The first Englishwoman who appeared on the regular stage was Mrs. Coleman, who in 1656 performed the character of *Ianthe* in Sir William Davenant's *Siege of Rhodes*. Previous to that time, royal and court ladies had frequently taken part in masques and pageants performed at the palaces. Two great authors were also actors—viz., Shakspeare and Molière.

ACTS OF THE APOSTLES, *akts*, the fifth in order of the books of the New Testament, and the last of those properly of an historical character. It gives a narrative of events that happened to the early Church during the thirty years immediately succeeding the death of Christ. It does not, however, narrate the "acts of the apostles" generally, being almost exclusively confined to those of Peter and Paul. The author of this book was Luke, and its authenticity is undoubted. It is probable that the Acts were written in Rome, about two years after Paul's arrival there, but the date is uncertain. The chronology of the book is involved in much obscurity, and has given rise to a great amount of discussion among scholars. The title was given, not by the original writer, but by a transcriber. The "Theophilus" to whom this book is inscribed, and to whom also reference is made in the opening verses of St. Luke's Gospel, is nowhere else mentioned. He was probably a convert of high rank.

ACUTE, *a-kewt'* (Lat., *acutus*, sharp), the opposite of obtuse, is a term applied to various things to denote sharpness.

In Music, a tone is acute when it is sharp or high, in respect to another tone, and as opposed to the grave.

In Elocution, an acute accent indicates elevation of the voice.

Acute angle, in Geometry, signifies an angle which is less than a right angle.

Acute diseases, in Medicine, are those which are attended by violent symptoms.

ADAGIO, *a-dai'-je-o* (It., *adagio*, leisurely), in Music, a term signifying the slowest of all time, the grave only excepted. Sometimes it is repeated, thus—adagio, adagio—to denote a still slower time.

ADDITION, *ad-dish'-un*, in Music, is the term applied to a dot placed on the right side of a note, to signify that it is to be sounded half as long again.

ADDITION (Lat., *addo*, I give to), in Arith., signifies the putting two or more quantities together so as to form one total. It is the first of the four fundamental rules, and the operation consists in adding together first the units, then the tens, then the hundreds, and so on; thus substituting for the original operation of adding the entire number, several simpler and easier operations. When the quantities to be added consist of several denominations which divide themselves into each other, as in the case of shillings, pence, and farthings; hundredweights, pounds, and ounces; or yards, feet, and inches, the smaller denominations are first added together, and, should their product equal or exceed the quantity of a superior denomination, the surplus of the inferior denomination is retained in that column and the number of the superior denomination carried or added into the next column. Then, supposing, in adding up several sums of money, the total of the pence column is 20, then, as 20 pence amount to 1s. 8d., 8 is put down in the total of the pence column, and 1 added to the shillings' column. In additions of fractions, the various fractions must be first reduced to the same denominator, in order that they may represent quantities of equal value; then add together all the numerators of the fractions so reduced, and give to their product the common denominator. The sign of addition is +, thus 2+4 means 2 added to 4.

ADDRESSED, *ad-dorsd* (Lat., *ad*, to, and *dorsum*, the back), in Heraldry, a term used when any two animals or other things are placed back to back.

ADDRESSES OF PERSONS OF RANK OR DISTINCTION :—

THE ROYAL FAMILY.—*Superscription*—To the Queen's Most Excellent Majesty. *Commencement*—Madam; May it please your Majesty. *Conclusion*—I remain, Madam, with the profoundest veneration, Your Majesty's most faithful subject and dutiful servant.

PRINCES OF THE BLOOD ROYAL.—*The Sons and Daughters, Brothers and Sisters, Uncles and Aunts of the Sovereign.* *Sup.*—To His (Her) Royal Highness the Prince of Wales (*Princess Helena*). *Comm.*—Your Royal Highness. *Con.*—I remain, with the greatest respect (I have the honour to be), Your Royal Highness's most dutiful and obedient servant.

Other Branches of the Royal Family.—*Sup.*—To His Royal Highness the Duke of Cambridge. *Comm.*—Sir. *Con.*—I remain, with the greatest respect, Your Royal Highness's most humble and obedient servant.

NOBILITY AND GENTRY.—*Duke or Duchess.*—*Sup.*—To His Grace the Duke (her Grace the Duchess) of Manchester. *Comm.*—My Lord Duke (*Madam*). *Con.*—I have the honour to be, My Lord Duke (*Madam*), Your Grace's most devoted and obedient servant.

Marquis or Marchioness.—*Sup.*—To the Most Hon. the Marquis (*Marchioness*) of Bute. *Comm.*—My Lord Marquis (*Madam*). *Con.*—I have the honour to be, My Lord Marquis, Your Lordship's (*Madam*, Your Ladyship's) most obedient and most humble servant.

Earl or Countess.—*Sup.*—To the Right Honourable the Earl (*Countess*) of Coventry. *Comm.*—My Lord (*Madam*). *Con.*—I have the honour to be, My Lord, Your Lordship's (*Madam*, Your Ladyship's) most obedient and very humble servant.

Viscount or Viscountess.—*Sup.*—To the Right Honourable Lord Viscount (*Lady Viscountess*) Halifax. *Comm.* and *Con.* same as Earl's.

Baron or Baroness.—*Sup.*—To the Right Honourable Lord (*the Lady*) Dacre. *Comm.* and *Con.* same as to Earls.

Younger Sons of Earls, and all the Sons of Viscounts and Barons.—*Sup.*—To the Honourable Walter Jocelyn. *Comm.*—Sir. *Con.*—I have the honour to be, Sir, Your most obedient humble servant.

Baronet and his Wife.—*Sup.*—To Sir Charles L. Young, Bart. (*Lady Young*). *Comm.*—Sir (*Madam*). *Con.*—I have the honour to be, Sir, Your most humble and obedient (*Madam*, Your Ladyship's most obedient humble) servant.

Knight and his Wife.—*Sup.*—To Sir John Ratcliffe (*Lady Ratcliffe*). *Comm.* and *Con.* as preceding.

Esquire.—This title is now given to every man of position and respectability who does not possess any special title.

The wives of Gentlemen, when several of the same name are married, are distinguished by the Christian name of their husbands; as Mrs. John Harper, Mrs. William Harper, the wife of the eldest representative being addressed only as Mrs. Harper.

Privy Counsellors have the title of *Right Honourable*, which is prefixed to their names thus (the Esq. is omitted after their names):—*Sup.*—To the Right Honourable William Ewart Gladstone, M.P. *Comm.*—Sir. *Con.*—I have honour to be, Sir, Your most obedient and very humble servant.

THE CLERGY.—*Archbishop.*—*Sup.*—To His Grace the Archbishop of York. *Comm.*—My Lord Archbishop. *Con.*—I remain, my Lord Archbishop, Your Grace's most obedient servant.

Bishop.—*Sup.*—To the Right Reverend the Bishop of Lincoln. *Comm.*—My Lord. *Con.*—I remain, My Lord, Your most obedient humble servant.

Doctor of Divinity.—*Sup.*—To the Rev. C. J. Vaughan, D.D., or To the Rev. Dr. Vaughan. *Comm.*—Reverend Sir. *Con.*—I have the honour to be, Reverend Sir, Your most obedient servant.

Dean.—*Sup.*—To the Very Reverend the Dean of St. Paul's. *Comm.*—Very Reverend Sir. *Con.*—I have the honour to be, Very Reverend Sir, Your most obedient servant.

Archdeacon.—*Sup.*—To the Venerable Archdeacon Hessey, D.C.L. *Comm.*—Venerable Sir. *Con.*—I have

the honour to remain, Venerable Sir, Your most obedient servant.

Clergymen.—*Sup.*—To the Rev. Thomas Jackson, M.A. *Comm.* and *Con.*—Reverend Sir.

* * If a Bishop or other Clergyman possess the title of *Right Honourable* and *Honourable*, it is prefixed to his Clerical title. (When Baronets and Knights have clerical titles, they are placed first).

No clerical dignitary confers title or rank on the wife of the dignitary, who is simply addressed *Mistress*, unless possessing a title in her own right, or through her husband, independently of his clerical rank.

JUDGES, &c.—*Lord Chancellor.*—*Sup.*—To the Right Honourable Lord Selbourne, Lord High Chancellor of Great Britain.

Rolls.—*Sup.*—To the Right Honourable the Master of the Rolls.

Chief Justice.—*Sup.*—To the Right Honourable Lord Coleridge, Chief Justice; or, the Right Honourable Lord Chief Justice of the Queen's Bench Division.

The Lords Justice of Appeal are addressed in the same form, and are all styled *My Lord*.

Puisne Judges.—The *Puisne* Judges and the Barons of the Exchequer are Knights; but the title of Judge being superior, they should be addressed thus:—

Sup.—To the Honourable Mr. Justice Cleasby.

Sup.—To the Honourable Baron Cleasby.

Sergeant.—*Sup.*—To W. Ballantine, Esq., Sergeant-at-Law.

NAVAL OFFICERS.—*Admirals* have the rank added to their own name and title, thus:—*Sup.*—To Sir William Wiseman, Bart., Admiral (*Vice-Admiral or Rear-Admiral*). If untitled, they are simply styled *Sir*.

Commodores are addressed in the same way as Admirals.

Captains are addressed either to "Captain John Adams, R.N.:" or if on service, "To John Adams, Esquire, Commanding H.M.S. —"

Commanders and Lieutenants are addressed in the same way.

MILITARY OFFICERS.—All officers in the army above Lieutenants have their military rank prefixed to their name and title. *Sup.*—To General Sir George Brownrigg, Bart., C.M.G.

Subalterns are addressed as *Esquire*, with the regiment to which they belong, if on service.

MUNICIPAL OFFICERS.—*Lord Mayor.*—*Sup.*—To the Right Honourable the Lord Mayor (*The Lady Mayoress*) of London, York, Dublin; The Lord Provost (*The Lady Provost*) of Edinburgh. *Comm.*—My Lord (*Madam*). *Con.*—I have the honour to be, my Lord, Your Lordship's (*Madam*, Your Ladyship's) most obedient humble servant.

The Mayors of all Corporations, with the Sheriffs, Aldermen, and Recorder of London, are styled *Right Worshipful*; and the Aldermen and Recorder of other Corporations, as well as Justices of the Peace, *Worshipful*.

AMBASSADORS.—Ambassadors have *Excellency* prefixed to their other titles, and their accredited rank added. *Sup.*—To His Excellency Count Schouvaloff, Ambassador Extraordinary and Plenipotentiary from H.I.M. (His Imperial Majesty) the Emperor of Russia. *Sup.*—To His Excellency the Right Honourable Sir H. George Elliot, G.C.B., Her Britannic Majesty's Ambassador Extraordinary and Plenipotentiary to the Austro-Hungarian Empire. *Comm.*—Sir. *Con.*—I have the honour to be, Sir, Your Excellency's most humble obedient servant. The wives of Ambassadors have also Excellency added to their other titles.

Envoys and *Chargés d'Affaires* are generally styled Excellencies, but by courtesy only.

Consuls have only their accredited rank added to their names or titles, if they have any.

ADDRESSES TO GOVERNMENT DEPARTMENTS AND PUBLIC COMPANIES.—*Queen in Council.*—All applications to the Queen in Council, the Houses of Lords and Commons, &c., are by *Petition*, as follows, varying only the title:—To the Queen's Most Excellent Majesty in Council, The humble Petition of M. N., &c., sheweth, That your Petitioner Wherefore your Petitioner humbly prays that Your Majesty will be graciously pleased to And your Petitioner, as in duty bound, will ever pray.

Lords and Commons.—*Sup.*—To the Right Honourable the Lords Spiritual and Temporal (To the Honourable

the Commons) of the United Kingdom of Great Britain and Ireland, in Parliament assembled, The humble Petition, &c. And your Petitioner (or Petitioners) will ever pray, &c.

Treasury and Admiralty.—*Sup.*—To the Lords Commissioners of Her Majesty's Treasury. *Sup.*—To the Lords Commissioners of the Admiralty. *Comm.*—My Lords. *Con.*—I have the honour to be, my Lords.

Navy Office and Ordnance.—*Sup.*—To the Principal Officers and Commissioners of Her Majesty's Navy. *Sup.*—To the Right Honourable the Secretary of State for War, War Office. *Comm.*—Sir (or *My Lord*, if so entitled). *Con.*—I have the honour to be, Sir (or *My Lord*), your (Lordship's) most obedient humble servant.

Vic tualling and Auditing Offices.—*Sup.*—To the Commissioners for Vic tualling Her Majesty's Navy. (Gentlemen.) *Sup.*—To the Commissioners for Auditing the Public Accounts. (Gentlemen.) *Con.*—Same as preceding.

Custom House.—*Sup.*—To the Commissioners of Her Majesty's Customs.

Excise Office.—*Sup.*—To the Commissioners of Excise.

Tax Office.—*Sup.*—To the Commissioners of Taxes.

Stamp Office.—*Sup.*—To the Commissioners of Stamps.

Bank of England.—*Sup.*—To the Governor, Deputy-Governor, and Court of Directors of the Bank of England.

ADELPHI, the name of a comedy by Terence. (*See* LATIN LITERATURE.) A name given to a small district near the Strand, London, the houses in which were mostly designed by the brothers Adam.

ADJECTIVE, *ad'-jek-tiv* (Lat., *adjectus*, added to), in Gram., is the name of one of the parts of speech or classes into which grammarians have divided words. It is so called because it *adds to*, or qualifies, the meaning of the noun with which it is joined : as, a *good* man, a *large* house, a *white* horse. In English, a noun frequently takes the place of an adjective : as, a *gold* watch, the *paper* duty. In the English and German languages, the adjective almost invariably precedes the noun ; but in French and Italian it nearly always comes after.

AD LIBITUM, *lii'-i-tum* (Lat., at pleasure), in Music, a term signifying that the performer may vary the strict time of the composition according to his fancy. It also frequently means that a part for a particular instrument or instruments may either be played or omitted at pleasure.

"ADMONITION TO THE PARLIAMENT." The title of a tractate published in 1571 by the Puritan party, and supposed to be written by two named Field and Wilcox, who suffered imprisonment on that account. The book condemned all religious ceremonies but those commanded by the New Testament. A second "Admonition," by Thomas Cartwright, appeared, and, like the preceding, was answered by Archbishop Whetgift.

ADONIC, *a-don'-ik*, in Poetry, a verse which consists of a dactyle and a spondee or trochee ; as *rara juvén-tis*. It was so called from being first used in the elegies on Adonis, the lover of Venus.

ADONIC FESTIVALS, *ad-on'-ik* (Gr., *Adonis*, Adonis), certain festivals held yearly by the ancients on the banks of the Adonis, a river of Phœnicia. (*See* ADONIS, BIOGRAPHICAL DIVISION.)

ADUMBRATION, *ad-um-brai'-shun* (Lat., *ad*, to, and *umbrā*, ashadow), in Heraldry, denotes that the shadow only of a figure is outlined and painted of a darker colour than the field.

ADVERB, *ad'-verb*, in Grammar, a part of speech, or class of words, so called from being generally joined to verbs, like adjectives to nouns, for the purpose of qualifying their meaning. Adverbs are also joined to adjectives and other adverbs. According to their signification, adverbs are divided into those of number, order, time, place, quantity, manner, &c. : as, *once*, *firstly*, *now*, *here*, *much*, *well*. Many adverbs are formed from adjectives by adding the termination *ly* (like), as, *wise*, *wisely*.

ADVERSA, *ad-ver'-sa* (Lat., *ad*, to, and *versus*, turned towards), in Numis., a term applied to those coins wherein the heads are seen facing each other.

ADVERTISEMENT, *ad-ver'-tis-ment* (Fr., *avertissement*), an announcement or notice, generally such as appear in newspapers or other periodical publications. Advertisements rarely appeared in England before the beginning of the eighteenth century. The first known in an English newspaper are two in the *Mercurius Elenticus*, of October, 1648. At the present time, the system of advertising has reached gigantic proportions, and is a most important branch of trade. Some firms regularly advertise in almost every newspaper, English and foreign, at a cost of from £40,000 to £50,000 annually. The most extensively advertised articles of use are patent medicines, special preparations of food, house furniture, and articles for domestic use. Public companies, house agents, patentees, publishers, auctioneers, jewellers, musical instrument makers, cheap tailors, and, of course, proprietors of places of amusement, advertise regularly and extensively. Advertisements of situations vacant and wanted, fill many columns of the leading newspapers, some of which insert short advertisements at low rates, and, consequently, publish thousands of notices referring to comparatively trifling matters. There are now about 2,000 newspapers of various kinds published in the United Kingdom, and it is not too much to say that their existence, in the majority of cases, depends upon the advertisements they publish, the price at which they are sold being so low that the receipts would not balance the cost of production unless aided by advertisements. About 160 morning or evening newspapers are published in Great Britain and Ireland, and it is quite within the mark to say that 100,000 advertisements appear daily in their columns. There are more than 1,500 weekly newspapers, and although, as a rule, the advertisements in each issue do not approach in number those of the daily papers, we may reasonably infer that on the average about as many appear weekly as daily. There are also nearly 400 class, trade, literary, social, and sporting publications, in which chiefly advertisements of a special character are inserted, and in many of them the advertisements are very numerous. In some of these publications, connected with particular and extensive departments of manufacture or trade, very high prices are charged for advertisements, and the supply is so great that the advertising pages generally greatly outnumber—in some instances in the proportion of two, or even three, to one—those devoted to the literary contents. All the leading provincial daily journals—especially those published in Manchester, Leeds, Liverpool, Glasgow, and other important places—contain very large numbers of advertisements, and a few papers are published which

contain scarcely anything but advertisements, being extensively bought as a means of intercommunication between those who want and those who supply. The *Times* is the greatest advertising medium in the world. It very frequently consists of sixteen (sometimes twenty-four) pages, of which not more than five or six are devoted to ordinary newspaper matter, the remainder being occupied by advertisements, printed in small type. As each page contains six columns, from sixty to seventy columns of advertisements not unfrequently appear in one day's issue—speaking approximately, about 2,500 separate advertisements. One advertiser—most frequently one of the eminent publishing firms—will occasionally occupy an entire page with announcements. As there is a competition to obtain space, the price charged is high; and it is within the range of probability to say that the *Times* receives annually (313 issues) nearly half a million sterling, for advertisements. The *Daily Telegraph* almost achieves a similar magnificent result, about 2,500 advertisements appearing daily. Besides newspapers, magazines and other periodical and special publications to a great extent depend on advertisements, and they are eagerly sought by advertisers as mediums of announcement. External pages (on wrapper or otherwise) are, of course, the most valuable, as most likely to meet the public eye; and, in the case of periodical or other publications of large circulation, are in great demand at very high prices. For the outer page of the Catalogue of the Great Exhibition of 1851 an enterprising tradesman paid £500, and no doubt found his account in doing so. £10 or £15 a page is not an uncommon charge for a periodical of large or special circulation. The *London Post Office Directory* contains, on the average, about 400 pages of advertisements; *Whitaker's Almanack* for 1881 has 100 pages; and *Bradshaw's Railway Guide* averages 150 pages. Some newspapers insert advertisements as paragraphs (with "advertisement" or "advt." prefixed or at the end) in the news columns, of course charging extra for the additional publicity, or run them along under the page headings. In magazines, advertisements frequently take the form of printed pages, supplied by the advertiser, and stitched up with the number of the periodical at a charge of so much per thousand. The immense development of advertising has brought into prominence a large class of acute, pushing, business men—advertising agents—who now constitute a very important class of the commercial community. Some of these receive advertisements for any newspaper or periodical, and are allowed commission by the publishers. Others pay a fixed price for a certain amount of space in particular newspapers, and make their profit out of the charges to advertisers; and some contract for the entire advertising business of a newspaper or periodical, relieving the publisher of all trouble in the matter. Some agents are employed exclusively by a newspaper or periodical to obtain advertisements, and are, in fact, commercial travellers, paid partly by salary and partly by commission. A very important branch of advertising consists of posting attractive announcements on walls and vacant spaces. The old bill-sticker who wandered about looking for favourable positions is now almost superseded by contractors who rent every available space, hoardings around buildings in progress, the sides of corner houses, and the walls of railway stations and platforms. Some of the advertisements are of a permanent character,

affixed to the walls; the greater number are printed bills, in which the art of the colour printer and bold draughtsman are displayed to the utmost advantage. Artists of considerable eminence have not disdained to furnish designs for announcements of pickles and other articles of trade; no slight perception of humour is frequently exhibited; and Associates of the Royal Academy have displayed their power in "high art" designs for what has been described as "external paper-hanging." The interior of railway carriages, omnibuses, and tram-cars, the splash-boards of Hansom cabs, and railway time-tables, are alike made available by advertisers. Sometimes an advertisement takes the form of a single word, repeated week after week, and month after month, until curiosity is excited, and then it appears in the name of some article of domestic use which the inventor desires to introduce to public notice. The advantage of advertising as a means of communication between employer and employed, owners of property and intending purchasers, and in many other ways, can scarcely be over-rated; and its effect in promoting the sale of articles, which have no particular merits to rely on, is extraordinary. Immense fortunes have been made by proprietors of pills, hair dyes, cough mixtures, and corn plasters, who have had the perseverance to spend £20,000 a year or more on advertising, and who have found the practice extremely profitable. It is stated that one manufacturer of an article, the name of which is a household word from persistent advertising, and who had annually spent about the sum named for more than a quarter of a century, thought he might trust to the fame of the article, and relinquished advertising, but was soon compelled to return to the practice, so diminished was the demand.

Advertisement Duty. A duty on every advertisement published in newspapers was first levied in 1712. At first the amount was proportioned to the number of lines, but afterwards a uniform duty of 3s. 6d. in Great Britain, and 2s. 6d. in Ireland, was imposed. In 1833, the impost was reduced to 1s. 6d. and 1s.; and in 1853, entirely abolished, after many unsuccessful attempts to obtain the remission. The advertisement duty was popularly described as one of the "taxes on knowledge."

ADYTUM, *a-di'-tum* (Gr., *adyton*, a recess), in Arch., a term in use among the ancients, signifying the most sacred part of their temples, to which none but the priests had access, and from which the oracles were delivered. In the ancient Christian Churches the name was given to the recess in which the altar stood.

Æ, a diphthong compounded of the vowels *a* and *e*, of frequent occurrence in Latin and Anglo-Saxon. It is now often superseded by the use of the separate letters, or the substitution of the simple *e*. In some words, as "æsthetics," it represents the Greek *a i*.

ÆGINETAN ART, *e-ji-ne'-tan*, the fine arts as executed by the people of Ægina (an island of the Saronic Gulf, in the Ægean Sea), especially sculpture, specimens of which, in the form of casts from sculpture discovered in the ruins of a temple supposed to be that of Jupiter Pæpællenus, are now in the Phigalian saloon of the British Museum. The originals are in the Glyptothek, at Munich, having been purchased by the late king of Bavaria. The sculptors connect the schools of early Greece with that of Etruscan sculpture.

ÆGIS, *ē-jis* (Gr., *aigis*, a goat-skin coat), the shield of Jupiter, by whom it was given to Minerva. According to Homer, the shield was covered with a skin of the goat Amalthea. Minerva afterwards fixed upon it the Gorgon's head, and thus endowed it with the power of turning into stone all those who looked at it. The term was also employed to denote the breast-plate of a god, and finally it came to be applied to the cuirass of distinguished persons.

ÆGOPHTHALMUS, *ē-gof-thal'-mus*. A term generally applied to gems in which the circular spots resemble the eye of a goat.

ÆNEID, *ē-ne-id*, the celebrated epic poem, written by Virgil in the time of Augustus Cæsar, which relates the wanderings of Æneas after the capture of Troy, his arrival in Italy, and his adventures previous to his marriage with Lavinia and settlement in Latium. The poem consists of twelve books. The first six contain a description of the wanderings of the hero; the others of his arrival in Italy, and the war between the Trojans and the natives. It was commenced about B.C. 30, the author continuing to labour upon it till his death, B.C. 20. He did not consider it completed at his death, and bequeathed it to his friends Varius and Tucca, who, at the express wish of the Emperor Augustus, edited it with the utmost care. The Æneid became at once the most popular and most highly-esteemed poem of the Romans. The poet interwove with the adventures of Æneas allusions to the glories of the Julian lines of which the Trojan hero is the assumed ancestor, and prophecies of the splendour of the city of which he was ordained the founder.

ÆNIGMA. (See ENIGMA.)

ÆOLIAN HARP, *ē-ō-li-an* (Lat., *Æolus*, the god of the winds), a kind of harp formed of a number of catgut strings, tuned in unison, and stretched across a deal box, open at the sides. The box is placed on the sill of a window, and the sash shut down upon it; the wind blowing into the room across the strings produces a harmonious mixture of sounds, resembling a distant choir. The Æolian harp is generally supposed to have been the invention of Father Kircher, the celebrated organ-builder.

ÆOLIC DIALECT, *ē-ol'-ik*, among Grammarians, one of the five dialects of the Greek tongue, agreeing in most things with the Doric dialect. It was spoken by the Æolians, one of the principal races of the Greek people, originally settled in Thessaly, whence they spread to the northern parts of Greece and in the west of the Peloponnesus. In the 11th century some of them migrated to the coast and islands of Asia Minor, where they founded many cities, among them Mitylene, in the island of Lesbos, where the Æolic dialect was developed in the poetry of Alceus and Sappho.

ÆOLIC VERSE, in Prosody, a kind of verse, consisting of an iambus or spondee, then of two anapaests, separated by a long syllable, and lastly of one long or short syllable.

ÆRA. (See ERA.)

AERIAL PERSPECTIVE, a term used in Painting to signify the diminution in the colour and brilliance of objects seen at a distance, causing them to look more or less remote.

ÆSOP'S FABLES, *ē-sop*, a collection of fables of great antiquity. The authorship is popularly attributed to a slave at Athens, born about 620 B.C. (See ÆSOP in BIOGRAPHY.) They were probably the production of various authors, although some of them attributed to Æsop were popular at Athens during the most brilliant period of its literary history; Socrates and others versified some of them. Of these fables, only a few are preserved. The prose fables now extant and attributed to Æsop are almost certainly spurious, and Bentley, the great Greek scholar, supposed them to be mostly of Eastern origin. They are about 230 in number.

ÆSTHETICS, *esc-thet'-ics* (Gr., *aisthetikos*).

A name given by German philosophers of the last century, particularly Professor Baumgarten of Frankfort-on-the-Oder, to the science of the beautiful, especially as connected with art. The study of beauty in its widest sense is the highest energy of the mind of man, and it alone can fully satisfy his several faculties. To analyse and reproduce physical, intellectual, and moral beauty are respectively the functions of art, science, and religion. How naturally the three forms combine together may be seen if we mark the close connection, for example, between the principles of chemistry and the beauty of autumnal woods, or consider how easily images of grace and loveliness group themselves around the forms of worship. Accordingly, it has been a favourite subject for contemplation from the earliest times, and the nobler the nature the more deeply it has felt the fascination of the theme. The book of Job, one of the earliest writings on record, is full of an almost passionate admiration for the physical and moral beauty of the universe, and centuries afterwards King David strikes the same note when he beholds the glory of the firmament. Egyptian hieroglyphics may not improbably have been the symbols of the laws of beauty embodied in natural forms; and Pythagoras, who may be regarded as the founder of science in the western world, and who himself had been, by a rare privilege, admitted to some of the studios of the Egyptian priesthood, founded a college at Crotona about the middle of the sixth century before Christ for the purposes of contemplation of the severest order. Plato, however, in preserving the opinions of Socrates, together with those of Gorgias and other philosophic companions, took the first step towards formulating a definite and communicable science open to all the world. In these discussions a definition of the beautiful was the object most eagerly sought, though not quite satisfactorily attained; but perhaps a partial failure in this respect was not without its advantages. Definitions are mental luxuries of a highly stimulating kind, and should not be too hastily concocted, or too greedily swallowed. Perhaps the best way of arriving at a practical test will be to follow the method sometimes pursued by Aristotle, and arrive at the real conception through its contraries. Now, ugliness may be considered to proceed from two principal sources—viz., confusion and monotony; and monotony consists in unity without variety, while variety without unity is confusion. Nothing, for example, is more delightful than a concert, nothing more distracting than a perpetual hammering. Unity, therefore in variety and variety in unity—that is of conception in variety of manifestation, variety of concrete form embodying unity of abstract idea, is the note and characteristic of

beauty, of which truth inexhaustible examples may be drawn from the harmony of the universe. Since, then, differentiation, or the bearing of distinguishing marks, is an element in the beautiful, and since man is admitted to be the most highly differentiated of any terrestrial creature, it follows that humanity also is a manifestation of beauty, and must be considered in any adequate system of æsthetics. This was, in fact, the Greek conception of *Cosmos*, embodying in a single word, beauty, order, the notions of beauty, of order, and of the universe—

"The diapason closing full in man,"

to quote the noblest words of the noblest ode of Dryden. Creation they perceived was alike in its entirety, and in every part a grand organism of inexhaustible order, and that organism they identified with perfection. *Æsthetics*, therefore, upon this conception may be defined as a perception of the relations existing between the various parts of the universe, or more shortly as a tracing of the Creator and his work of creation. This definition brings us back to the conceptions of Plato, or rather of those philosophers whose conversations he records; the beautiful being there reckoned among his architypal ideas which seem to have dimly shadowed the twofold existence of the creature in the providence and the knowledge of God. Following, however, another hint of Aristotle, it is to the poets rather than to the philosophers that we look for the highest expression of æsthetics; for the poets are high priests of natural beauty. Thus Hesiod, in his poem on the Works and Days of Creation, commences with the famous lines a portion of which served St. Paul for an argument in his address to the Athenians.

"God is the first of our song, for God is beginning of all things.

We, too, are offspring of God."

Pinder, with the delight of a Greek in the vivid action of universal life, declares the source of beauty is motion, and that the fountain of all movement and life is the lyre of Apollo, which leads the dance wherein all nature rejoices. Under the spell of these strains the ringing song of the "Muses," the inspirers of every form of the beautiful both in art and science, breaks out "over the land and o'er the boundless sea," and they only are privileged to hear that song who are obedient to the will of heaven. Theocritus, with less sublimity and far more human passion, has yet drawn such exquisite pictures of rural beauty, that to meditate upon his works and to be saturated with his spirit is to have made no small practical advance in æsthetical culture. From this period the analysis of this notion of beauty took a more definite shape and form; its object, or at least its practical application, being to ascertain the laws of taste, and so to lay a foundation for scientific criticism. There are two modes of naturally dealing with this subject, commonly described as the metaphysical or *à priori* and the scientific or *à posteriori* methods. But the division is not wholly satisfactory, and a more useful distinction may be obtained by considering one system as deducing the science from the laws of the perceiving mind, and the other from the laws of the things perceived. From Plato—whose mind recognised wholly the divine element in beauty, and whose idea of prenatal reminiscence, gave birth to Wordsworth's well-known lines on infancy that

"Trailing clouds of glory do we come
From Heaven which is our home."

We pass on to Aristotle whose notions were far more exact although more limited than those of his predecessors. Ignoring the conception of an absolute beauty, he is more concerned in distinguishing it from the good for which moral action is necessary, whereas the beautiful may exist in inanimate objects, and in the useful which is merely the fitting, and of a lower character than the beautiful. Passing over the Neoplatonism of the Alexandrian School of whom Plotinus was one of the most distinguished, another Greek author of somewhat later date calls for more particular consideration. The treatise "On the Sublime" of Longinus is the only one of five-and-twenty treatises written by that author which is still extant, and it obtained much fame in former times. Longinus himself was a statesman of no inconsiderable importance, having been prime minister of Zenobia, the Queen of Palmyra, and her chief support in her war with Aurelian, by whom he was put to death on his conquest of that city. His reading was of so varied a character that he was called by Eunapius a living library and a walking museum. He enumerates five sources of the sublime. The first and most excellent of these is a certain boldness and grandeur in the thoughts; the second, called the pathetic, consists in the power of raising the passions to a violent degree; the third, in a skillful application of figures, that is of sentiment and language; the fourth, in the noble and graceful manner of expression; the fifth, the structure of the sentences and the periods. The two former of these he considers to be the gifts of nature, the remainder to be the effect of art. His treatise thus embraces in a measure both the philosophical and the practical aspect of the sublime; and, besides the criticisms which it contains, it is valuable as connecting the general principle of *Æsthetics* with the minute details of Rhetorics. The Romans dealt little with abstract speculation; but Cicero, whose education had been chiefly Greek, alludes to the music of the spheres as forming part of the harmony of the universe, and gives other instances of *Æsthetic* culture. Coming to modern times, Baumgarten, who is generally credited with the revival of *Æsthetics* as a science, though he himself acknowledges his indebtedness to Gesner, maintained that that science is not concerned with the clear notions of the understanding, but with the confused conceptions of sensuous knowledge. Holding the beautiful to be the perfection of such ideas, and perfection to consist of the harmony between the object and its conception, he arrived by a different route at the conclusion that nature is the highest embodiment of beauty. Kant first set the example of treating this science as a particular portion of the general system of metaphysics: an example afterwards followed by Schelling, Hegel, and other German writers. As therefore their theories upon this point depend on their general metaphysical principles, it would be not only extremely difficult, but highly unphilosophical, to attempt an account of their theories on this particular branch, without a previous exposition of their entire system. As an instance, however, of Kantian treatment, it may be mentioned that he considers *Æsthetics* to be that branch of judgment, or the middle term between cognition and volition, concerned in the pleasure or pain experienced on the presentation of an

object; and attempts to differentiate the beautiful by the four categories of quantity, quality, relation, and modality. Schiller, who speaks upon the subject of Æsthetic culture with the high authority of a dramatist of the first rank, combines the two methods of speculative and experimental investigation, and in a certain sense considers the two methods as one. Mankind in general, he avers, are united in holding those ideas which predominate in the practical part of the Kantian system, and only philosophers doubt about them. When extricated from their technical form, they are recognised as the prescriptive claims of the common reason, and appear as the data of the moral instinct, which nature places before man as a model, till clear insight brings him to maturity. Nature, he truly observes, deals with man as with her other works. She acts for him when he cannot as yet act with his free intelligence. But the prerogative of man consists in this, that when he has arrived at a state of understanding he does not rest satisfied with the results of mere nature, but can retrace with his reason the steps he has taken under the guidance of nature, and thus transform the work of need into the work of his own free choice. Having then gained a certain mastery over his mental faculties, he can elevate or degrade his mind by the object of contemplation towards which he directs his faculties; and this object should be the beautiful. Reasoning upon these principles, Schiller is brought to join in the oft repeated assertion that morals are refined by an expanded taste for the beautiful, and considers that no new proof of this is necessary. But hereupon he is confronted with the reflection that he finds humanity prostrate in almost every epoch of history where the arts flourish and taste is supreme, and that not a single example occurs where a high degree and great universality of Æsthetic culture has gone hand in hand with political freedom and civil virtue; or refined manners or polished demeanour with truth; which observations he illustrates from the empires of Greece, of Rome, of Arabia, and of Italy. From these considerations he comes to the conclusion that the beauty against which these examples bear, cannot be the same beauty as that of which he has been speaking; and that the pure idea of the beautiful must be sought by means of abstraction, and by apprehending the necessary conditions of humanity through a rejection of all accidental limits. Jean Paul Richter, commenting in his "Vorseluteder Æsthetik" upon the systems of Kant and Schiller, observes that these authors make the sublime to consist in an infinite which sense and imagination fail to give and comprehend, but which the reason creates and retains. If, says he, the sublime be defined as related infinity, there is also a division to be made: that related to the eye (the mathematical or optical sublime)—that related to the ear (the dynamical or audible)—then the qualitative and quantitative sensuousness; and finally, the sublimity which manifests itself exactly in an inverse relation to the external or internal sensuous symbol, namely, the moral or active sublime. Lessing and Winckelmann discuss the subject more from the stand-point of art; and to these may be added Von Kirchmann, who, in a reaction against the Hœgelian philosophy, resorts to the simpler methods of observation and induction. Among French writers, Diderot teaches that the science is properly that of the sentiments, and

that the sentiments are the objects for which the fine arts exist; while M. Taine holds that the universality or the degree of adaptation to the needs of life determines the Æsthetic value of a work. In our own country, Shaftesbury distinguishes three grades of beauty; that which exists in inanimate objects; that which exists in living beings; and that which exists in God, the source of all beauty. Reid places beauty in the perfection of a thing for the end for which it is created, and which displays the wisdom of the Creator. Burke expressly calls it a social quality, and regards it chiefly in its physical aspect, maintaining that though "its efficient cause is in that chain of causes which link one to another even to the throne of God himself;" yet that when we proceed but one step beyond the immediately sensible qualities of things we go directly out of our depth. Alison teaches that the emotion of taste is not simple, but complex, being made up of the exercise of some moral affection and the consequent excitement of the imagination, and he denies all beauty to matter except so far as it corresponds with the qualities of things capable of exciting emotion. Herbert Spencer deals with the feelings in the form of a special synthesis of the general correspondence between life and its circumstances, and holds that the state of mind produced, for example, by seeing a beautiful statue is a form of consciousness both cognitive and emotive; and he claims for Æsthetics a high rank amongst the instruments of education. Several other writers have also treated of this subject, amongst whom may be specially named Cousin, Jouffry, and Leveque, Lord Kames, Professor Bain, Fagarns, Max Schaster, and Franz Hersterhiuser of Holland. But notwithstanding the number and eminence of the writers on Æsthetics, the field which promises perhaps the most ample harvest has as yet remained unreaped. An analysis of literature and art considered in the light of expressed beauty, somewhat as motion in dynamics is considered as expressed force, could hardly fail to throw much light on the laws of criticism and of education, and might lay the foundations for a system of intellectual economy.

AFFETTUOSO, *af-fet-too-o'-zo*. (See MUSIC.)

AFFIRMATION, in Grammar, a term applied to such particles as affirm or assert, in opposition to such as deny a statement.

AFFIX, *af'-fix* (Lat., *af*, for *ad*, to, and *figo*, I fix), a term applied to a syllable added to the end of a word, by which its form and signification are altered; as *wealth*, *wealth-y*; *odd*, *odd-ly*.

AFFRONTÉ, *af-fron'-te* (Lat., *af*, for *ad*, to, and *frons*, face), in Heraldry, a term applied to animals facing each other on an escutcheon.

AGE, *a'ij*, a term denoting generally any fixed period of time, but used definitely in various senses. The old Greek poet Hesiod divided the history of the world into five successive ages or periods, during each of which it was peopled by an entirely distinct race. They were—the names denoting gradual changes in the conditions of goodness and happiness—the golden, silver, brazen, heroic, and iron. Ovid in his "Metamorphoses," follows Hesiod, except that he omits the heroic age. Modern philosophers have suggested other "ages," or great divisions of history. Fichte recognised ages in which instinct, external authority, and reason have predominated. Comte dis-

tinguished three ages, according to the state of knowledge in each: in the first, knowledge as supernatural or fictitious; in the second, metaphysical or abstract; in the third (on which he believed the world is now entering), positive or scientific. Ethnologists speak of the flint age and the bronze age. Historians describe the period between the overthrow of the Western Roman empire, 476 A.D., and the Reformation in the middle of the 16th century, as the Middle Ages intervening between the times of classical antiquity and modern times.

AGONISTARCH, *ag'-o-nis'-tark* (Gr., *agonistes*, a combatant, and *archos*, the chief), the superintendent or president of the sacred games, who exercised authority over the athleteæ, inspected their discipline, and awarded the prizes to the victors. In the Olympic, Pythian, and other great public games, these presidents represented different states, or were chosen by and from the people in whose country the games were celebrated.

AIGUISCÉ, *ai'-gis-sai* (Fr.), in Heraldry, a term employed to denote a cross which has the two angles at the ends cut off, so as to terminate in two points, in opposition to the cross *jitché*, which tapers to a point.

AISLE, *île* (Fr., *aîle*, wing), in Arch., denotes that lateral division of a church which forms the side of the edifice. Thus, when a church is divided into three compartments, the middle or principal compartment is called the nave, and the two outlying compartments form the aisles. English churches have seldom more than two aisles, and some have only one side aisle; but Chichester cathedral has five aisles. In foreign ecclesiastical edifices there are often as many as four aisles, two on each side of the nave; and Milan, Amiens, and some other cathedrals have five aisles, and Antwerp and Paris seven aisles, while the cathedral of Cordova, in Spain, has as many as nineteen aisles. Sometimes the term aisle is given to all the compartments of a church, the nave or body of the building forming the middle aisle, and the side compartments the side-aisles. (See CHURCH, TRANSEPT, NAVE.)

ALARM, *a-larm'*, a sudden surprise occasioning fear or terror; an outcry intimating the approach of danger. In military language, it denotes either the apprehension of being attacked, or the notice given of a sudden attack, as by firing a rifle, or beating a drum. The old form of the word is "alarum," and in the stage directions of Shakspeare's plays, in the battle scenes, it is so spelled.

ALBUM, *al'-bum* (Lat., *albus*, white), among the Romans, was a white board or register, on which the names of persons or public transactions were inscribed. The term is now usually applied to a book for receiving autographs or other manuscript contributions of friends or celebrated individuals; and photographic albums, for the reception of portraits, are now very familiar table ornaments.

ALCAIC, *al-kai'-ik*, a name given to a kind of verse said to have been invented by the Greek poet Alcæus. It is formed of four feet, with a cæura in the middle. The first foot is a spondee, rarely an iambus; the second an iambus; then the cæura, followed by two dactyls; as—

Dúlce ét | dècò | rum èst | prò pátri | à mōri.
"It is sweet and glorious to die for one's country."

Horace introduced this measure into the Latin language.

ALCOVE, *al'-kove* (Arab. *el-kauf*, a tent), a term applied to a recess in a chamber where a bed is or can be placed. It is also used to describe any recess in any sort of apartment.

ALDINE EDITIONS, *al'-dine*, in Bibliography, a term applied to those editions of celebrated authors which, in the 15th century, came from the press of the family of Aldus Manutius. A number of classical works, in both the Greek and Latin tongues, were produced in a duodecimo form, and printed. These are what is generally understood as the Aldine Editions, and are much prized for their correctness and typographical beauty. For a short time a branch of the Aldine Press was established in Rome. The distinguishing mark is an anchor entwined by a dolphin, generally with the motto, *sudavit et alsiit*. In the early part of the 16th century, many counterfeit Aldines were produced at Lyons and Florence.

ALEXANDRIAN LIBRARY. This was, probably, the largest library that had existed before the invention of printing. It was founded at Alexandria, about 284 B.C., by Ptolemy Soter, at the suggestion of Demetrius Phalerius, who had seen the public libraries at Athens. Agents were employed in different parts of Asia and Greece to seek out and purchase the rarest and most valuable works; so that, at length, the Alexandrian library is said to have comprised 700,000 volumes. At first, the books were contained in the museum in the Brucheion quarter of the city; but, when they amounted to 400,000 volumes, a new library was formed, within the Serapeion, or temple of Serapis, where, at length, 300,000 were collected. During the plunder of the city, after its capture by Julius Cæsar, the old library was accidentally destroyed by fire. That in the Serapeion, however, still remained, and was subsequently largely augmented, particularly by the Pergamean collection, amounting to 200,000 volumes, presented by Mark Antony to Cleopatra, till it at length surpassed the former in the number and value of its contents. When the temple of Serapis was destroyed, in A.D. 390, by Theophilus, patriarch of Alexandria, under Theodosius the Great, a great part of the library was destroyed or lost.

ALEXANDRIAN MANUSCRIPT, *Codex Alexandrinus*, the name of a Greek manuscript of the Old and New Testaments, now in the British Museum. It is written in capital letters, with the words undivided. It was sent as a present to Charles I., from Cyrillus Lucaris, patriarch of Constantinople, by Sir Thomas Rowe, ambassador from England to the Porte. Cyrillus probably obtained the manuscript in Alexandria. It is contained in four volumes quarto, of which the New Testament occupies the last, and is written on vellum, in double columns. The New Testament is, however, less perfect than the Old. It contains all the canonical and most of the apocryphal books, with several others. It was transferred from the King's private library to the British Museum in 1757. Critics are much divided as to the date of this work; but it seems most probable that it was written about the 5th century. A fac-simile of the New Testament was published by Dr. Woide, in 1786, and one of the Old Testament by the Rev. H. Baber, in 1816. In 1864, the text was published at Oxford, under

the editorship of Mr. Hansell, along with that of three other ancient Codices.

ALEXANDRINE VERSE, a species of verse, so called from its being first used in an old French poem on Alexander the Great, belonging to about the 12th century. It is now the regular heroic verse of the French, and consists of twelve syllables, broken into two regular hemistichs, *i.e.* every sixth syllable terminating a word. In English, the Alexandrine verse is rarely used throughout a whole poem, and the rule of dividing into hemistichs is occasionally violated. The second of the following lines (from Pope's "Essay on Criticism," in which he illustrated the peculiarities he noted) is an Alexandrine :—

"A needless Alexandrine ends the song,
Which, like a wounded snake, drags its slow
length along."

The Spenserian stanza—employed in the "Faërie Queen" and Byron's "Childe Harold"—ends with an Alexandrine. The longest English poem in Alexandrine is Drayton's "Polyolbion."

ALHAMBRAIC, *al-ham'-brai-ik*, a term given to a particular style of ornamental art, which is founded upon the decoration of the celebrated Moorish palace of the Alhambra, at Granada. (See GEOGRAPHICAL DIVISION.) In this style all imitations of men and animals are omitted, while the floral and vegetable forms employed bear only a distant resemblance to nature. Rich metallic elaboration and gorgeous colouring are the chief characteristics of the Alhambraic style; but, so exquisite was the taste of the Moorish artists who invented it, that it was always harmonious.

ALLA, *al-la* (Ital., in the manner of), a term used adverbially in Music, in various ways; as, *Alla breve*, "quick time," wherein the notes take but half their general length; *Alla Capella*, "in the church style," etc.

ALLECRET ARMOUR, *al'-le-cret* (Ger., all-strength), a convenient armour, much worn in the 16th century. It consisted of a casque, breast-plate, and gussets, which sometimes reached to the middle of the thigh, and sometimes below the knees. In the paintings and prints of the period the Swiss soldiers are commonly depicted in this armour.

ALLEGORY, *al'-le-gor-e* (Gr., *allegoria*, a parable), is the description of a subject, or the representation of a train of thought by means of sensible images having some resemblance to the thoughts. Thus Menenius Agrippa made use of an allegory when, in addressing his fellow-citizens at Rome, he described their rebellion under the figure of a conspiracy of the several members of the body against the stomach. Allegory has been a favourite mode of expression in all ages and countries, particularly among the Orientals; and it is sometimes the fittest or most available means of giving a lively or intelligible representation of certain subjects or notions. It is employed in the Old and New Testaments; but not always in the sense of a parable or fiction from which a moral applicable to other things may be drawn; but sometimes one implying that historical facts may have a secondary or typical illustration, as St. Paul's reference to the story of Abraham and Hagar—"these things are an allegory." Some commentators are disposed to consider the Song of Solomon as an allegory; and parables or short allegories are conspicuous vehicles of

instruction in the New Testament. Dante's "Divina Commedia" may be considered as an allegory; but the greatest modern master of allegory is unquestionably Bunyan. The poem of Phineas Fletcher, "The Purple Island," is an allegorical representation of the physical and moral constitution of man. The "Spectator" abounds in allegories.

ALLEGRETTO, *al-lai-gret'-to*, the diminutive of allegro, a term used in music to denote that the time is not so quick as that of allegro.

ALLEGRO, *al-lai'-gro* (Ital., merrily, sportively), in Music, a term denoting the third degree of quickness. It is also used in combination with other terms; for example, *allegro agitato*, quick and agitated; *allegro furioso*, vehemently quick; *allegro assai*, more quickly; *allegro di molto*, very quickly; *allegro non molto*, not very quick; *allegro ma non presto*, quick, but not extremely so. Milton adopted the word as a title to his admirably living and graceful poem "L'Allegro."

ALLEMANDE, *al-le-mand'* (Fr., *German*), a term applied to a dance which originated in Alsace, and was therefore known as the "German dance," as implied by the name. It was introduced into France at the Court of Louis XIV., soon after the annexation by France of the German provinces. The dance consists of three sliding steps made backwards and forwards, and the movement of the arms is very graceful. Formerly it was a slow dance; but at the present time it is understood to be moderately quick. By Handel and others of his contemporaries it was composed in four-crotchet time.

ALL-FOURS, a game of cards, played usually by two persons, but sometimes by four, with a complete pack, and so named from the four chances therein, for each of which a point is scored, and which, joined in the hands of either of the party, are said to make *all fours*. The chances are—*high*, the best trump out; *low*, the smallest trump dealt; *Jack*, the knave of trumps; *game*, the majority of pips reckoned from such of the following cards as the respective players may have in their tricks—every ace counting 4, king 3, queen 2, knave 1, and ten 10.

ALLITERATION, *al-li'-e-rai'-shun* (Lat., *ad*, to, *litera*, a letter), the frequent repetition of the same letter in a phrase or in a line of poetry. Churchill speaks in an amusingly illustrative line of, "Apt alliteration's artful aid." Very effective when employed by a master of phraseology or verse, alliteration may easily degenerate into affectation. There is an exquisite melody in Shakspeare's "Full fathom five thy father lies;" a graceful movement in Elizabeth Barrett Browning's "And the lovely London ladies trod the floor with gliding feet;" and a lively wit in Pope's "Puffs, powders, patches, bibles, billet-doux." Swinbourne has a very characteristic line, which hangs in the memory, "The lilies and languors of virtue, the roses and raptures of vice;" and Gray is powerful with "Weave the warp and weave the woof." But some instances of alliterative verse frequently quoted are only ingenious, and by no means poetical. Some phrases are fixed in the memory by aid of alliteration, as Lord Derby's famous "meddle and muddle," "fact and fiction," and "fair and foul." Alliterative titles are frequently effective for books; and alliteration sometimes helps to preserve the name of the

author, as in the case of "Cruden's Concordance." Authors of fiction have frequently adopted alliterative names for their heroes, as in the instances of Smollett's "Roderick Random" and "Peregrine Pickle," and Dickens' "Nicholas Nickleby." In Anglo-Saxon, Scandinavian, and old German poetry, alliteration served a purpose similar to that of rhyme in modern verse.

ALLUSION, *al-lu'-shun* (Lat., *allusio*, a playing or sporting with), in rhetoric, a figure by which is denoted something as applied to, or understood of another, on account of some similitude between them.

ALMACK'S, *al'-max*, a suite of assembly rooms (now Willis's Rooms) in King Street, St. James's, frequently alluded to in the fashionable and social literature of the later part of the last century, and the first quarter of the present. The rooms were built in 1765 by a Scotchman named M'Call, who, thinking his name might be prejudicial (his countrymen at that time being unpopular in London), transposed the syllables.

ALMAGEST, *al'-ma-jest*, the name given by Arab writers to a celebrated book composed by Ptolemy (see BIOGRAPHICAL DIVISION), being a collection of a great number of the observations and problems of the ancients, relating to geometry and astronomy, but especially the latter. It is the first work of this kind which has come down to us, and contains a catalogue of the fixed stars, with their places, besides numerous records and observations of eclipses and the motions of the planets.

ALMA MATER, *al'-ma mai'-ter* (Lat., a nourishing mother), a term applied to a university by those who have studied at it.

ALMANAC, OR **ALMANACK**, *al'-ma-nak* (Arab., *al*, the, and *manah*, to count; or, as some suggest, from the Teutonic *al-maen-achte*, an observation of all the moons), is an annual publication, giving the civil divisions of the year, the movable and other feasts, the times of the various astronomical phenomena, and other useful information. Almanacs existed among the Alexandrian Greeks in or after the time of Ptolemæus. The time of their first appearance in Europe is not known, but manuscript almanacs of the 14th century are preserved in the British Museum, and in the library of Corpus Christi College, Cambridge. The first of any note was that by Purbach, 1450-61. The first printed almanac was that of Regiomontanus, which appeared from 1475 to 1506. At a very early period, wooden or "clogg" almanacs were in use, consisting of blocks of wood about eight inches in length, on which notches and symbols indicated the days of the week and saints' days. The Anglo-Saxons also used pieces of wood, on which the increase of the moon was marked, and to such a calendar they gave the name of All-moon-heed, which suggests another etymology for the word now in use. In England, the universities and the Stationers' Company possessed a monopoly of the trade in almanacs from the time of James I. to 1775, when a decision of the Court of Common Pleas in favour of one Carnan, a bookseller, abolished it. The Stationers' Company, however, maintained a monopoly by buying up rivals, and "Moore's Almanac," in which a farrago of astrological absurdity was mingled with more practical matter, maintained an extraordinary popularity for many years. In 1828, "The British Almanac," a very valuable publication, appeared, and was followed by others, and the practical

monopoly of the company was broken down. In our own time, "Hannay's" and "Whitaker's" almanacs have attained a deservedly high reputation for accuracy and copiousness of information. The latter, indeed, includes the features of an official directory and political and statistical handbook; and "Thom's Irish Almanac," and "Oliver & Boyd's New Edinburgh Almanac," are works of even larger scope. The "Gotha Almanac" (having German and French editions) is a great authority on all matters connected with the *personnel* of royal families and the political condition of the world. George Cruikshank hit upon the idea of uniting an almanac with humorous literature and sketches; and for many years the "Comic Almanac" was one of the most welcome of annuals. *Punch* adopted the plan; and now almost every professedly comic publication issues an almanac. The "Nautical Almanac," published by the Admiralty for the use of astronomers and seamen, is brought out three years in advance. The stamp duty, of fifteenpence per copy, to which almanacs were long subjected, was abolished in 1834. (See CALENDAR.)

ALONSINE, OR **ALPHONSINE**, **TABLES**, *a-lon'-sin*, an astronomical work which appeared in the year 1252, under the patronage of Alonso X., reputed by some to be constructed by Isaac Ben Said, a Jew; by others, by Al Cabit and Aben Ragel, the preceptors of Alonso. An official reprint of the work was begun in 1863.

ALPHABET, *al'-fa-bet* (from *alpha* and *beta*, the names of the two first letters of the Greek alphabet), is a term applied to the letters of which a language is composed, in their natural or accustomed order. In spite of the extreme diversity of languages, most alphabets present, in the number, order, and even form of their letters, decided evidences of a common origin. It has been disputed whether to the Egyptians, Chaldeans, or Phœnicians belongs the honour of having invented the written characters. The common opinion, however, is, that we are indebted for them to the Phœnicians. Cadmus is said to have brought the Phœnician alphabet, consisting of 16 letters, into Greece, about 1493 B.C. This was subsequently altered and added to, and became the ground of the Roman alphabet, which is now in use over Europe. The English language comprises 26 letters; French, 25; Italian, 20; Spanish, 27; German, 26; Russian, 41; Latin, Hebrew, Chaldee, Syriac, 22; Greek, 24; Arabic, 28; Persian, 32; Turkish, 33; and Sanskrit, 50. The Chinese have, properly speaking, no alphabet; but they have 214 radical or elementary characters. The form of letters, there can be little doubt, originated in attempts to portray forms, which degenerated into hieroglyphs, and in the lapse of time only very faint resemblances remained. (See **HIEROGLYPHS**.) The phonetic alphabets, in which letters represented sounds, grew out of the hieroglyphic system. In the oldest Greek manuscripts no "small" letters are employed. They were only faint cursive forms or varieties of the capitals, and perhaps arose from rapid tracing of the letters in a soft material. There is some confusion in our modern English alphabet, some letters having two or more sounds, and two characters having the same sound.

ALPHA AND OMEGA, the first and last letters of the Greek alphabet, frequently employed to symbolize the idea of completeness or

infinity. Three times in the book of Revelations, the Divine speaker says, "I am Alpha and Omega, the first and the last, the beginning and the end."

ALT, *alt* (Lat., *altus*, high), in Music, a term applied to that part of the scale which commences with F, the fifth line in the treble clef, and ends at E, the third ledger line above the same clef.

ALTERNATE, *al-ter'-nait*, in Heraldry, a term used in respect to the situation of the quarterings. Thus, the first and fourth quarters, and the second and third, being generally the same, are called alternate quarters.

ALTO, *al'-to*, the deepest species of musical voice of boys and females, ranging between the treble (or soprano) and the tenor. Fine voices of this kind are exquisitely beautiful, and capable of powers of expression, which is rarely possessed by any other voice, combining sweetness of tone with power. Some of Handel's most pathetic airs, as "He shall feed the sheep," were written for the alto voice. Italian musicians give it the name *contralto*. The range is from F or G between the middle C to A or B above the octave C. (See VOICE.)

ALTO RILIEVO. (See RILIEVO.)

"AMADIS OF GAUL", *am'-a-dis*, the name of an old romance of chivalry, the first of the kind printed in Spain, and referred to in "Don Quixote," as "the best of all books of this kind, and unequalled in its way." It abounds in adventures in enchanted castles, knightly encounters with lions and dragons, and views of distressed damsels. The Spanish version appears to have been adapted from a Portuguese romance written by Vasco Lobeira, a knight of great prowess who died in 1403; and there is some reason to suppose that he was indebted to an Anglo-Norman original. The best version for English readers is the abridged translation by Southey.

AMBROSIAN CHANT. The choral music introduced from the Eastern to the Western Christian Churches, in the 4th century by St. Ambrose, bishop of Milan. It was founded on the modes of the music of the ancient Greeks, and was sung antiphonally, that is, alternately. In the 6th century it was almost completely superseded by the Gregorian chant (*see*); but continued to be sung in the cathedral at Milan, where it may be occasionally heard now.

Ambrosian Hymns were designed by the author to be a preventive against the errors of Arianism. Several of them have been adopted in modern collections. A large number of hymns bear the title; but only seven, or at the most twelve, are believed to be the genuine composition of St. Ambrose.

Ambrosian Library, a great library at Milan, named in honour of St. Ambrose. (See LIBRARIES and MILAN, in GEOGRAPHICAL DIVISION.)

AMERICANISMS, *a-mer'-i-kan'-isms*, words or phrases used in the United States of America, but not current in England, occurring chiefly in conversation or in ephemeral writings, the works of standard American authors containing very few of them. The number of new words introduced in America is comparatively small. The Americanisms are chiefly words or phrases used in a different sense from that which they have in England; as "I guess" in New England, or "I expect" in New York and the Middle States, for "I think" or "suppose." In some instances,

words that have become obsolete, or the meanings of which have changed in England, are preserved in America, and fall under this class. There is a distinction not always recognized between local peculiarities of language, the same word varying in meaning, and slang or cant phrases. Thus, "store" instead of shop, and "clever" instead of good natured, is not slang; but "make tracks," for go away, is.

AMPHIBRACH, *am'-fi-brak* (Gr., *amphi*, both, and *brachys*, short), in Poetry, the name of a foot of three syllables, of which the middle one is long, and the first and last short.

AMPHIMACER, *am'-fim'-a-ser* (Gr., *amphi*, and *makros*, long), in Poetry, the name of a foot of three syllables, of which the middle one is short, and the first and last long.

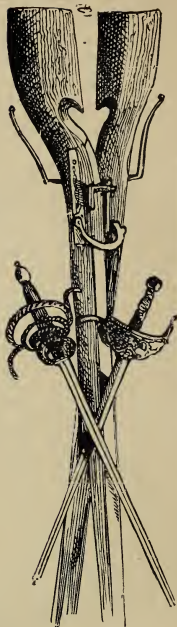
AMPHITHEATRE, *am'-fi-thé'-a-ter*, among the ancient Romans, was a species of structure designed for the exhibition of combats of gladiators, wild beasts, and other sports. Its name is formed from the two Greek words *amphi*, on both sides, and *theatron*, a theatre, and would thus denote a double theatre. In the theatre, which was internally arranged somewhat in the form of a semicircle, were heard music and recitations. The amphitheatre, in the form of two semicircles, or rather an ellipse, was devoted to spectacle. Indeed, the first amphitheatre that we read of was literally a double theatre, being so constructed upon pivots that the two halves could be either placed back to back, to form two theatres, or face to face, to form an amphitheatre. The first amphitheatres were of wood. The earliest stone edifice of this kind was that erected by Statilius Taurus, in the reign of Augustus; but, from its being destroyed at the burning of Rome in the reign of Nero, a portion of it must have been of wood. Several others of a similar nature, or of wood, were constructed till the reign of Vespasian, when the *Aphitheatrum Flavium* was commenced; a work which has been the admiration of all subsequent ages. It is also called the Coliseum, or Colosseum, and was completed by Titus about A.D. 80, when, at its dedication, 5,000 animals were slain in the arena, the games having lasted for a hundred days. It covered about five acres of ground, and there were places for 87,000 spectators, and 15,000 more could be admitted on an emergency. It is elliptic in form, the greater diameter being 612 feet, and the shorter 515 feet. The decorations were of the most magnificent character. Gladiatorial combats and fights with wild beasts, were the chief entertainments; but on some occasions, real water was admitted (how, is not clearly explained), and representations of naval combats took place. The remains form the most stupendous memorial of ancient Rome. The exterior circuit of an amphitheatre consisted of two or more stories of arcades, varying in number according to the extent of the amphitheatre. On the ground floor they opened to an equal number of arched passages and staircases, tending like radii towards the arena, and were intersected by two or more arched passages or corridors which surrounded the whole edifice, and gave an uninterrupted communication to every part. Sometimes in the middle of the building there was an intermediate gallery, which, like those on the ground floor, ran round the whole, and served as a common landing-place to all the staircases leading to the higher galleries, as in the amphitheatre at Nîmes; and some-



ASSYRIAN SCULPTURE.



ATHLETES, GREEK.



ARQUEBUSS.



ALLECRET ARMOUR.



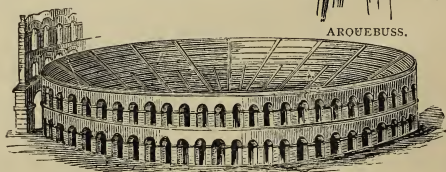
ATLANTIDES.



ÆGIS.



AFFRONTÉ.
(HERALDRY.)



AMPHITHEATRE.



ARCHWAY, NORMAN.



ARABESQUE.



ARMED AT ALL POINTS.

times each staircase had its distinct landing, without any gallery of general communication, as in the amphitheatre of Verona. Of the radiating passages, the four which were placed on the diameters of the ground-plan of the edifice were made wider than the rest, and were also laid open to the adjoining passages on each side of them by means of lateral arches. Those two which were placed on the shorter diameter were the principal entrances, by which the emperor, the senate, and the other distinguished personages of the state were conducted to their seats on the "podium." The other two led directly into the arena by large arched gateways, and were appropriated to the beasts and gladiators, who probably entered in a processional manner, that required more width and height than the ordinary inlets. These interior gateways still exist at the extremities of the ellipses in the amphitheatres of Verona and Pæstum, and in the former interrupt the continuity of the lower arches. Through the other passages the different orders of the people passed to the staircases which led to their respective seats; and as every arch in the exterior circuit was numbered, and also the "cunei," which separated the people into classes, every one knew the passage which would conduct him to the place assigned by the laws of the amphitheatre to his rank and condition. The amphitheatre of Nismes consisted of two stories of open arcades and an attic. The lower storey is very lofty, with tall and narrow arches, separated by buttresses of two projections in the Gothic style, crowned by a Tuscan capitol. A regular in tablature encircles the building, and breaks in projection over every buttress. The exterior circuit consists of sixty open arches, of which four, at the extremities of the diameters, are ornamented with pediments: these were formerly the grand entrances. The vicissitudes of this celebrated edifice are so numerous that it is wonderful it should remain so well preserved as we find it at the present day. In 472 the Visigoths converted it into a fortress. In 720 it was taken by the Saracens, who remained in possession of it till they were driven out of it by Charles Martel in 737. After that time it was occupied as a fortress by the counts of Provence, who sustained a number of attacks therein, and built a church and palace on the arena. In 1533 Francis I. ordered it to be cleared. In the middle of the 18th century it was occupied by a number of mean hovels, all of which have disappeared. The modern inhabitants of Nismes use the arena for bull-fights. We have in England several vestiges of old Roman amphitheatres. Near Sandwich, in Kent, there is an elliptical excavation, with benches of turf; and at Caerleon, in Monmouthshire, as well as other places, there are distinct traces of these favourite edifices of the Romans.

AMPLIFICATION, in Rhetoric, implies the presentation of an idea, opinion, or reference, accompanied by accessory circumstances, with the object of producing a more powerful impression. Exaggeration is an undue enlargement of particular facts and circumstances.

ANA, *ai'-na*, *a'-na*, is a termination added to the names of remarkable men, to designate collections of their sayings, extracts from their writings, or, generally, any particulars concerning them. It is put in the form of the Latin neuter plural, and signifies properly matters or things about, or relating to, the person to whose

name it is annexed, as: Johnsoniana, Walpoliana, &c.

In Medical Prescriptions, *Ana*, *aa*, or *ā*, denotes that an equal quantity of each of the ingredients is to be taken.

ANABASIS, *a-nab'-a-sis* (Gr., a march into the interior), is the title given by Xenophon to his account of the expedition made by Cyrus the Younger in the year B.C. 401 against his elder brother Artaxerxes upon the death of their father Darius II. His use of this title is somewhat euphemistic, for the work consists of two parts—the Anabasis being the ascent or invasion of the Babylonian empire, and the Catabasis being the descent or retreat of the invading army back to Sardis, the latter being the more important portion of the two, as the expedition was utterly defeated. The expression, therefore, must be taken much as if an officer of the Grand Army, in describing the disastrous retreat from Moscow and the expedition which led to it, should entitle his work the Invasion of Russia. The origin of the revolt was the desire on the part of Cyrus to free himself from the yoke of Artaxerxes, after he had been publicly accused of treason before him by his former friend Tissaphernes. This disaffection was promoted, if not instigated, by his mother Parysatis, who, says Xenophon, significantly gave her support to Cyrus (*hyperche ta kyro*), loving him rather than the reigning Artaxerxes. The preparations at Sardis, where Cyrus was residing, were made with great secrecy and subtlety, so that the king, who was at Babylon, had no knowledge of them. The route taken by Cyrus differed from that traversed from the eastward by Xerxes during his march towards Greece, and instead of running through central Cappadocia, kept southward by the great plains and cities, and then turned to the east, lower down, so that, though more circuitous, it was more advantageous, as affording an opportunity of communicating from time to time with the fleet, and thus receiving important reinforcements. The line chosen lay across the Mæander, through Colossæ (to the inhabitants of which St. Paul in after times addressed two of his epistles); and thence passing Celæne he proceeded to Peltæ, where a halt of three days was made, and the sacred rites of the Lycaean Jove were celebrated. Thence by Forum of the Cerami to the Plain of Castrus. At this point difficulties occurred on the important subject of pay, the troops beginning to grow clamorous; but they were solved by the opportune arrival of the queen of the Cilicians, who presented Cyrus with a large sum of money. Marching past the Gates of Syria, two fortresses commanding the entrance of that country, he passed on to Thapsacus, and so through Babylonia to Cunaxa, which he reached on the 18th day, of which time nearly one-half had been spent on the march. Here he unexpectedly encountered a vast army, which his brother the great king, having heard of his movements, had collected in the interval, and though his troops at first routed those of the Persian monarch, yet, in a personal encounter with his brother, he himself was slain, and the flower of his army fell with him. A day's rest was snatched after the fatigues of the battle, and then the weary and mournful retreat of the ten thousand Greeks began, under the command of Clearchus. A different line of country was pursued from that which they had traversed on their outward march. The first point gained was the Wall of Media; whence, passing through

that province, they reached the sources of the Tigris and made for the plains of the Euphrates. This portion of their journey caused great suffering to the troops on account of the scarcity of the inhabitants and the intensity of the cold, and more especially from the bitterness of the wind. But a worse misfortune befell them shortly afterwards, for their guide having been ill-treated by Cheirosophus, into whose charge he had been given, escaped during the night, leaving, however, his son behind. Crossing the mountains of the Taochi, they arrived on the 150th day of the retreat at Mount Theches, from whence they obtained a view of the distant ocean, and recognizing that familiar sight, raised their historic shout, "The sea! the sea!" Their troubles, however, were not yet over. On passing through the country of the Colchians they were obliged to do battle with the inhabitants, and suffered greatly from some honey which was eaten by the troops. Reaching Trebizond at last, they came through the Chalybes to Cotyora, whence they made their way along the Euxine by sea, touching at Sinope, Heraclea, and Byzantium. The style of Xenophon is clear, concise, and soldierlike; and he deals little in general reflections, a notable fact in one who has written also the memoirs of Socrates. He gives his measures in great detail, the chief of which are the parasang, reckoned at a little over three English miles, the stathmos or station, equivalent to a day's march varying a little in amount, but generally about five parasangs, and the stadion or halt, thirty of which make up a stathmos. A question has arisen, founded on a passage in the "Ellenica," whether the *Anabasis* was not written by Themistogenes of Syracuse, but authority has decided in favour of Xenophon. Some geographical comments of value have been published by Mr. W. F. Ainsworth.

The *Anabasis* of Alexander by Arrian relates the history of Alexander the Great. On the murder of his father Philip (B.C. 336) by a young nobleman of the court, Alexander, then about twenty years of age, demanded of the allied Greeks to be made general of the intended expedition against the Persians in the room of his father. The conduct of each of the principal parties concerned in this arrangement was characteristic. The conservative Spartans observed, that by an ancient custom, handed down from their ancestors, they ought themselves to have the command of any army raised for a foreign expedition. The innovating Athenians debated how to carry some reform, while Alexander himself, in true Macedonian fashion, supported his request by marching into the Peloponnesus at the head of a large army, and so terrified both parties that they decreed him more honours than they had before promised to Philip. Arrian's treatise consists of seven books, in all of which Alexander is the hero. The first records his destruction of Thebes, which he utterly burnt, with the exception of the house of Pindar the poet; and his descent into Asia as far as the defeat of the army of Darius at the Granicus (B.C. 334). One noteworthy incident recorded in it is his coronation of the tombs of Achilles and Patroclus as he passed by Ilium. The second book describes the defeat of Darius himself on the Issus, a catastrophe well known to English readers from Dryden's famous ode. Books 3, 4, 5, and 6 are occupied with the Egyptian and Indian campaigns. Book 7 records the death of Hephaestion, whose well-known friendship for Alexander forms the subject for a splendid tragedy by a modern poet (Aubrey De Vere), followed by his own death from a fever (B.C. 324). His reign, therefore, lasted a little over twelve years, not too long a period for subjugating the world. Alexander's history was written by many Greek authors, such as Aristobolus, Cassandrensis, and others, the fragments of whose works have been collected by Dr. Geiger. Plutarch includes him among his biographies. The curious connection of Græco-Buddhist statues, forming a link between east-

ern and western art, recently discovered by Dr. Leitner on the borders of Dardistan and Cashmere, are considered to date from the expedition of Alexander.

"ANACHARSIS, VOYAGE DU JEUNE, EN GRÈCE" (Travels of the Young Anarchises in Greece), a description of the life and manners of ancient Greece, supposed to be written by Anacharsis, the Scythian who visited Athens in the time of Solon. The author was Jean Jacques Barthélemy, a popular French writer of the 18th century. The book is brilliant, and displays much learning, but the author took strange liberties with authentic history. It has been translated into English, and was for many years highly esteemed as a book of instruction for the young.

ANACHRONISM, *an-ak'-ro-nism* (Gr., *ana*, upwards, *chronos*, time), is a name given to a falsification, intentional or otherwise, of chronological relations. Anachronisms are not unfrequently to be found in works of art, and are sometimes introduced for the sake of effect; as where Schiller, in his "Piccolomini," speaks of a "lightning conductor," although it was not invented till 150 years later.

ANACOLUTHON, *an'-a-ko-lu'-thon*, an apparent incoherence in the construction of a sentence, due to a desire on the part of the writer or speaker to present his thoughts in another aspect, feeling that he has already made his meaning sufficiently plain, although the sentence is grammatically incomplete. This sudden transition is often very effective in the works of the greatest orators and writers, though unimaginative critics are apt to complain of incongruity and incompleteness.

ANACREON, ODES OF. Only a few fragments remain of the genuine productions of this poet, so famous for his graceful lyrics in praise of love and wine. In 1554, a collection was printed from ancient manuscripts, but the greater number were evidently by later writers. They have been translated with consummate grace by Thomas Moore. Horace, and other poetical critics among the ancients, who were familiar with the works of Anacreon, speak of them with enthusiastic admiration.

ANAGRAM, *an'-a-gram* (Gr., *ana*, backwards, and *gramma*, a letter), is the formation of a new word or phrase out of another word or phrase, by the transposition of the letters; as, *evil, live; Galenus, Angelus; Horatio Nelson, Honor est a Nilo*. Anagrams have often been the medium of high-flown compliments; and sometimes a maxim appears with epigrammatic force, as in the following:—

"Pray tell me where is 'Christianity?'"
Transpose the letters—"it's in charity."

ANAPÆST, *an'-a-pæst*, in Greek and Latin metre, is a foot consisting of two short syllables followed by a long one.

ANCIENT, *ain'-shent* (Fr., *ancien*, Lat., *antiquus*), usually signifies very old, and is applied to something that existed or happened long ago. In a more limited sense, it is applied to that period of the world's history which preceded the overthrow of the Roman empire in the West. The term *ancients* is sometimes used as including only the Greeks and Romans; as when we speak of the philosophy of the *ancients*.

Ancient, an old name for a military officer who bore the flag, equivalent to the more modern "ensign." It occurs frequently in Shakespeare. *Othello* speaks of *Iago* as "my ancient," and in *Henry IV.* and *Henry V.* we meet with "Ancient Pistol."

ANDANTE, *an-dan'-tai* (Ital.), in Music, a term used to imply a time somewhat slow, and a performance distinct and exact. It forms the third of the five divisions of musical movement, and may be said to be the medium between the extremes of quick and slow. It is likewise used substantively, thus:—an “Andante of Haydn,” &c. *Andante affettuoso*, slow and with feeling; *andante cantabile*, slow, but in a singing style; *andante con moto*, a little faster than andante; *andante grazioso*, slow but gracefully; *andante largo* or *largo andante*—by this expression is understood that the performance of the movement to which it is prefixed is to be slow, distinct, and exact; *andante maestoso*, slow with majesty; *andante non troppo*, slow, but not too much so; *andante pastorale*, slow and with pastoral simplicity.

ANECDOTE, *an'-ek-dote* (Gr., *a*, not, *ekdotos*, given out or published), signifies literally a thing not given out or published; and hence it is a term sometimes applied to *secret histories*. Procopius gives this title to his secret history of the emperor Justinian and his wife Theodora. It is also applied to works of the ancients that have not before been published, as the *Anecdota Græca* of Muratori. In common language, an anecdote is a detached incident or fact of an interesting nature, usually connected with the life of a distinguished individual. Many collections of anecdotes have been published.

ANNALS, *an'-nals* (Lat., *annus*, a year), a term usually employed to denote a plain narrative of historical facts, arranged under the particular years in which they happened. It differs from history, inasmuch as the events are strictly arranged in the order in which they occurred, those of the one year being completed before those of another are begun. It differs also in being usually a bare narrative of events, without, as in history, the author's opinions and remarks being interspersed. Annals require brevity; history demands ornament. Annals may be said to furnish the elements or materials out of which history is composed.

ANNO DOMINI, *anno domini* (Lat., in the year of our Lord), a term used in chronology to denote a year since the incarnation of our Saviour. It was first adopted in the middle of the 6th century, and is usually contracted A.D. Charles III. of Germany was the first who added, “in the year of our Lord” to the date of his reign, in 879. The period from the birth of Christ is termed the Christian era. (See ERA.)

ANNODATED, *an-no-dai'-ted*, is a term used in Heraldry to denote anything bent somewhat in the form of an S. The serpents in the caduceus of Mercury are said to be annodated or entwined about the mace or staff.

ANNOTATION, *an-no-tai'-shun* (Lat., *annotatio*, from *ad*, to, and *notatio*, a marking), a term commonly used in the plural, and applied to remarks, notes, or commentaries on certain passages of a book, designed to illustrate their meaning. An annotated edition of a work is an edition having such annotations.

ANNUAL REGISTER is the name of a well-known annual publication, which first appeared in 1759, and which is still carried on. Various works of a similar nature had previously been published, as Boyer's “Political State of

Europe,” from 1711 to 1739; and the “Historical Register,” from 1716 to 1738. The “Annual Register” was projected by Robert Dodsley, the bookseller, assisted by Edmund Burke, who for some years wrote the historical narrative; and it is said that much of it was written from his dictation for about thirty years. In 1781 was published the first volume of the “New Annual Register,” projected and edited by Dr. Kippis; but it never attained the reputation of its rival, and came to a close in 1825. The “Edinburgh Annual Register” was commenced in 1808 and terminated in 1827. The historical narrative was for some years written by Sir Walter Scott, and afterwards by Southey. A French work, in imitation of the “Annual Register,” appeared at Paris in 1825, for the year 1818, under the title of “Annuaire Historique Universel,” and the first volume of the “Annuaire des Deux Mondes,” in connection with the well-known review of that name, appeared in 1851.

ANNUALS, the name of a class of books that were for some years very popular in this country. They were usually of a light literary nature, tastefully got up, and illustrated with finely-engraved prints, and appeared about Christmas. The first of them “Forget-me-not,” was begun in London in 1822; and the following year two others “Friendship's Offering” and “The Graces,” made their appearance. The “Literary Souvenir” was commenced in 1824 by Alarie A. Watts, and was a great improvement upon its predecessors. The “Keepsake” was commenced in 1827, under the editorship of W. H. Ainsworth. The “Gem,” edited by Thomas Hood, and to which Sir Walter Scott contributed, appeared in 1828. In 1829 no fewer than seventeen different annuals were published; in 1840 the number had dwindled to nine. One of the most popular, “The Book of Beauty” begun in 1833, had for its earliest editors, Miss Landon (L.E.L.), and the Countess of Blessington. Enormous sums were expended on the literary contributions and illustrations of these annuals, the place of which may be said to be now occupied by the illustrated editions of popular works, which many of the publishers bring out about Christmas; but they have formidable rivals in the Christmas numbers of “All the Year Round,” the Christmas double numbers of the “Illustrated London News” and “Graphic,” and “Beeton's Christmas Annual.” A large number of these publications are now issued, generally in a cheap form, and illustrated with woodcuts.

ANNULET, *an'-nu-let*, a term in architecture for a small fillet or band surrounding a column.

ANOMALY, *a-nom'-a-le* (Gr., *anomalos*, irregular, unequal), in grammar, signifies an irregularity, an exception or deviation from rule. Anomalous verbs are such as are not conjugated comfortably to the rules of their conjugation, as, *lego* in Latin, to *give* in English.

ANONYMOUS, *a-nom'-i-mus*, a term derived from the Greek, and signifying literally without a name, or nameless. It is applied to books which do not bear the name of the author. When an assumed name is given, the term *pseudonymous* is used. It is frequently a matter of importance in literature to know the author of an anonymous work; and hence several excellent works have appeared in Germany and France on this subject; as, Placcius “De Scriptis et Scrip-

toribus Anonymis et Pseudonymis Syntagma," Hamburg, 1674; and "Thesaurus Anonymorum et Pseudonymorum," Hamburg, 1708; and the excellent work of Barbier, "Dictionnaire des Ouvrages Anonymes et Pseudonymes," second edition, 4 vols., Paris, 1822-25, giving the names of about 24,000 works, with their known or assumed authors. In this country, political articles, as well as most of those that appear in periodicals, are anonymous, a system which, while it secures greater freedom to the writer, occasionally leads to abuse. The sending of anonymous letters demanding money or denouncing persons was made felony by 9 Geo. I., the "Black Act" (1722), 8 Geo. IV. c. 29 (1827), and 1 Vict. c. 87 (1838).

ANTÆ, *an'-te*, pilasters, or door-posts, supporting the lintels attached to a wall; also the pier-formed ends of the side walls of temples, when prolonged beyond the face of the walls.

ANTAGONIST MUSCLES, *an-tag'-o-nist* (Gr., *anti*, against; *agonistes*, a combatant), are those muscles which act in opposition to each other; as flexors and extensors, abductors and adductors. In the arm, for example, the flexor muscles bend the limb inward at the elbow, while the extensor muscles draw the limb back or extend it in a direct line. The flexor and extensor muscles act antagonistically towards each other, not in efforts at simultaneous and contrary action, but in consecutive action of an opposite direction. There is, however, a sort of passive action in the different muscles of the body, constituting what is termed the natural tone of the system; and when this is lost or partially enfeebled in one set of muscles, their natural antagonists have an undue action on the parts, and cause disfigurement by destruction of the natural balance.

ANTANACLASIS, *ant'-an-a-kla'-sis* (Gr., *antanaklao*, I drive back), in Rhetoric, is a term denoting the repetition of a word in a different sense, or as a different part of speech, from that in which it has already been employed, in order to attract attention or give expressiveness to the phrase; as, "Whilst we live, let us live." It is also the returning to a subject after a long parenthesis, by repeating, in the same words, part of what went before.

ANTECEDENT, *an-te-se'-dent* (Lat., *ante*, before, and *cedo*, I go), is the noun which precedes the relative, and to which it refers, as for instance, in the sentence "His son, who followed him;" the word "son" is the antecedent, and "who" the relative. In Logic, it is the proposition or principle on which another proposition, which is called the consequent, depends. In the relation of cause and effect, the cause is the antecedent, the effect the consequent. In the plural number the word has a particular signification, thus—"His antecedents are bad" means that the previous character, conduct, and position of the individual referred to are bad.

ANTECHAMBER, *an'-te-chaim-ber* (Lat., *ante*, before; Fr., *chambre*, room, apartment), the room which leads to the principal apartment.

ANTEPENULT, *an'-te-pe-nult'* (Lat., *ante*, before, *penē*, almost, and *ultimus*, the last), denotes the last syllable of a word except two—the one before the penult.

ANTHEM, *an'-them* (Gr., *anti*, against, and

hymnos, a hymn), properly signifies a hymn sung in alternate parts, and was anciently sung alternately by the two sides of the choir. At present the name is applied to a species of musical composition, introduced into the service of the English church in the beginning of the reign of Queen Elizabeth, the words being taken from the Psalms or other suitable portion of the Scriptures or Liturgy. When sung, it follows the third collect. There are three kinds of anthem—solo, verse, and full anthem. The solo anthem has only one voice to a part; the verse consists chiefly of chorus, but there are also verse parts for single voices; the full anthem is wholly chorus, and sung by all the voices. The anthem can only be heard to perfection in cathedral service. Although in its origin and construction it is somewhat analogous to the *motet* of the Romish Church, and, moreover, both being really written for a trained choir and not for congregational singing, yet in its treatment and development it is entirely English, and scarcely any English composer of note can be mentioned who has not written many good anthems.

ANTHOLOGY, *an-thol'-o-je* (Gr., *anthos*, a flower, and *logia*, a collection), literally means, a collection of flowers, but is usually applied to any collection of choice passages from various authors, either in prose or verse, but generally in the latter. It is more especially applied to certain collections of Greek epigrammatic poems, comprising about 4,500 fugitive pieces by about 300 writers, which is commonly called the Greek Anthology. Meleager, the poet and sophist, who lived at Gadara, in Syria, probably about the middle of the 1st century before Christ, is regarded as the first producer of a work of this kind. He collected the best effusions of his predecessors from Sappho downwards, and included numerous productions of his own. He entitled his volume "The Garland," and wrote an introductory poem comparing each poet to the flowers which he fancifully deemed applicable to his genius. Subsequently, Philip of Thessalonica (who was the first to use the term Anthology), added compositions of thirteen writers who lived after Meleager, and subsequently other supplements were formed by the sophists Diogenianus of Heraclea, Strato of Sardis, and Agathias; but all these ancient works are lost. Many of the pieces, however, had been preserved by Constantine Cephalas, who lived in the 10th century, and Maximus Planudes, who flourished in the 14th. Of the latter, the first printed edition is that of Lascaris, at Florence, 1494. The last edition, with a Latin metrical translation by Grotius, is that commenced by Bosch, and finished by Lennep, in 5 vols., Utrecht, 1795-1822. In 1606 a manuscript copy of the earlier collection of Cephalas was discovered by Salmasius in the Heidelberg library. It was taken to Rome during the Thirty Years' War, and subsequently to Paris; but was restored to Heidelberg in 1816. It is much the richer and better of the two, and has been frequently edited. In imitation of the Greek anthologies, several Latin anthologies have been made by Scaliger, Pitthous, Burmann, and others, the largest collection being Burmann's, which was issued at Amsterdam (1759-1773). A well-arranged edition of Burmann's selection was issued by Meyer in 1835. A still better and more critical edition was issued by Alexander Riese in 1869. Oriental literature, particularly the Arabian, is very rich in anthologies. A selection from

the old Arabic songs previous to Mahomet was arranged and published in ten books by Abu-Temam, and Abu'l Faraj of Isphahan, who died in 966, also published a collection of all the ancient Arabian songs he could find. This was republished by Kosegarten in 1840. There are various other Arabian anthologies, but the best and most complete is that compiled by Taalebi, and entitled by him "The Pearl of the World." It has been enlarged and continued since his death. Persia, Tartary, Turkey, India, and China, all possess many ancient anthologies. The *Shi King* (Book of Songs), compiled by Confucius, is the oldest anthology in the world, and is one of the canonical books of the Chinese. The Sanscrit language and literature do not possess so many of these collections as do the other oriental nations.

ANTHROPOLOGICAL SOCIETIES. *an-thro-po-lo'-gi-kal.* The Anthropological Society was established in London in 1863, and the *Anthropological Review* appeared in the same year. In 1874, the Anthropological and Ethnological Societies were united, and styled the Anthropological Institute.

ANTICLIMAX, *an-ti-klí'-max* (Gr., *anti*, and *kílmaz*, gradation), in Rhetoric, denotes a sentence which is an abrupt but complete declension from the dignity or grandeur of the one which preceded it, and which is spoken of as the clinax, as it rises from the level of ordinary language to a height of feeling or thought.

ANTIPHONY, *an-tí'-o-ne* (Gr. *anti*, and *phónē*, a voice), in Church music a mode of singing in which one portion of the choir responds to the other. In the cathedral service of the Church of England, the Psalms are generally chanted in this manner. The method was adopted by the ancient Hebrews, Greeks, and Romans, and was introduced into the Greek Church by Ignatius in the 2nd century, and into the Western Church by Ambrosius in the 4th century.

ANTIPHRAISIS, *an-tí'-ra-sis* (Gr. *anti*, and *phraísis*, a form of speech), is applied to an expression used in a contrary sense to that which it has in appearance; or to a kind of irony wherein we say a thing by denying what we ought rather to affirm it to be; as, "It did not displease me," meaning, "I was pleased with it."

ANTIQUARIES, SOCIETY OF.—The Society of Antiquaries was first established in 1572, when Archbishop Parker, Sir Robert Cotton, and some others, united their efforts for the preservation of the ancient monuments of their country. James I. regarding the meetings of the society with apprehension, thought fit to dissolve it in 1604, and the society remained in abeyance till the beginning of the 18th century. In 1707 its operations were resumed, and in 1751 it obtained a charter of incorporation from George II. There are a Scottish Society of Antiquarians, and French Societies of a similar character. (See ARCHEOLOGY.)

ANTIQUARY, *an-ti-qua-re* (Lat., *anti-*, *quaríus*, from *antiquus*, ancient), is one who studies and searches after monuments and remains of antiquity, as old medals, books, statues, sculptures, and inscriptions, and, in general, all curious pieces that may afford any insight into antiquity. In a wider sense it is one who makes the manners and customs of earlier times a special subject of inquiry, or who deduces his-

tory from the relics of the past. The word "antiquarian" is frequently used, but erroneously, for antiquary—it is properly the adjective. *Antiquarii* was also a name given in the Middle Ages to copies of old books, especially in convents. The keeper of an antiquarium, or cabinet of antiquities was also styled an antiquary. In Italy, the ciceroni who point out the antiquities of a place are termed antiquaries, as are also, in Germany, those booksellers who deal in old or second-hand books.

ANTIQUITIES. (See ARCHEOLOGY.)

ANTISTROPHE, *an-ti-stro'-fe* (Gr., *anti*, against, and *strophe*, a turning), was a term applied by the ancients to that part of a song or dance before the altar, which was performed by turning from west to east, in opposition to the *strophe*, which was performed by moving from east to west. Hence *strophe* and *antistrophe* came to be applied to certain stanzas of an ode, together with *epode*, which was applied to that part which was sung when the chorus stood still. In Grammar, *antistrophe* is applied to the changing of things mutually dependant upon each other; as, "The master of the servant," and "The servant of the master."

ANTITHESIS, *an-tith'-e-sis* (Gr., opposition), is the bringing together or contrasting things that are opposed to each other; as in that passage from Cicero, "On the one side stands modesty, on the other impudence; on the one fidelity, on the other deceit; here piety, there sacrilege; here continency, there lust." In the same way, it was said of a book that it contained much, both new and true, but that the new it contained was not true, and the true was not new. When judiciously introduced, this figure gives vigour and liveliness to style; but its frequent introduction becomes tedious.

ANTITYPE, *an-ti-tí-pe*, is a Greek word, literally signifying a figure formed after or corresponding to some other type or figure. A type is a pattern according to which a thing is to be made; antitype is a thing formed according to a model or pattern. In a theological sense, the antitype is that in which a type is fulfilled; as the paschal lamb is the type of which Christ is the antitype. By the early fathers, the bread and wine in the Eucharist are styled the antitypes of the body and blood of our Lord.

ANTONIUS, ITINERARY OF, *an-to'-ni-us*, an ancient and valuable work, giving the names of all places, stations, and roads in the Roman Empire, with their distances from each other in Roman miles. The work is generally supposed to have been the work of the Emperor Marcus Aurelius Antonius, hence its name. Other authorities, however, assert that it was commenced in the time of Julius Cæsar, and amended in the time of Antonius. An excellent edition was published by Parthey in Berlin, in 1848.

ANTONIUS, WALL OF, one of the Roman barriers built in Britain to repel the incursions of the Picts and Scots. It extended across the country from the Frith of Forth to the Frith of Clyde, and was executed in the reign of Antonius Pius—hence its name. It consisted of a deep and wide ditch, or rampart of earth, 20 feet high by 24 broad at the base, surmounted by a parapet, within which was a pathway for the defenders. Again, behind the wall was a fixed

..military road. There was also a chain of 19 forts, with watch towers between. Fragments still remain.

ANTONOMASIA, *an-to-no-mai'-si-a* (Gr., *anti*, and *onomu*, a name), a term to denote the substitution of an appellative for a proper name; as when Moses is called the Lawgiver, Aristotle the Stagyrte, or Shakspeare the Bard of Avon.

AORIST, *ai'-o-rist* (Gr., *a*, not, and *onos* a limit), the tense of a Greek verb, by which an action is expressed as taking place in an indefinite time. It usually expresses the past time, but sometimes the present or future.

APAUME, or **APPAMEE**, *a-pome'* (Fr., *a*, and *paume*, palm of the hand), in Heraldry, means a hand, showing the palm extended, with the thumb and fingers at full length.

APEX, *ai'-pex* (Lat.), the vertex or summit of anything. Among the Romans it was also the name of a kind of conical cap, worn by the priests, or, more properly, of a small stick, with a tuft of white wool attached, which was fastened to the top of it. The crest of a helmet was also called *apex*. It is also applied to a mark placed over a syllable to denote that it is to be pronounced long; especially used when a word has a different meaning, according as it is pronounced long or short; as, in Latin, *mālus* signifies ill; *mālus*, an apple-tree.

APHÆRESIS, *a-feer'-e-sis* (Gr., *aphaiaeo*, I take away), is a term used to denote the taking away of a letter or syllable at the beginning of a word; as, *it's* for *it is*; *'gainst*, for *against*. A like retrenchment at the end of a word is called *apocope*.

APHORISM, *af'-o-rism* (Gr., *aphorizo*, I separate), a maxim, or a short and significant sentence, containing a moral precept or rule of practice, forcibly expressed in a few words; as, "It is always safe to learn from our enemies; seldom safe to instruct even our friends." It is also applied in Medicine and Law to certain truths laid down, but not treated argumentatively; as the aphorisms of Hippocrates, Sanctorius, or Boerhaave; aphorisms of the civil law, &c. It is likewise applied to a figure in rhetoric, whereby something that has been said is limited or corrected.

APOCO, *a-po'-co*, a term in music signifying by degrees, by little and little.

APOLLO BELVIDERE, *a-pol'-lo bel'-vi-deer*, the name commonly borne by a beautiful statue of the heathen divinity Apollo or Phœbus, which, in 1503, was found in the ruins of the ancient Antium. Pope Julius II. bought it and had it placed in the Belvidere of the Vatican at Rome, whence the name. It is generally admitted to be the most magnificent work of art in existence. It is now believed not to be an original work, but a copy from another statue which has not been discovered. The divinity is seen in a standing position, almost nude: over his right shoulder is suspended a quiver, upon his extended left arm he carries his pællium, and in his hand, according to some critics and antiquaries, is seen the remnant of a bow, from which an arrow is supposed to have been discharged at the serpent Python. Others, however, on the authority of a bronze statuette, now in St. Petersburg, suppose that the god held in his hand the ægis, and appears in the act of spreading consternation among

enemies. It is supposed that the occasion for the production of the statue was the invasion of the Gauls, whom, in 278 B.C., the god drove in alarm from his sanctuary. The whole statue is characterised by a combination of grace, beauty, and symmetry of proportion. By some critics it is held that Pliny makes allusion to this beautiful figure; but the more generally received opinion is that the sculptor is entirely unknown. For a time the statue was kept in Paris, whither it had been conveyed by the emperor Napoleon I., in 1797; but at his downfall this marvel of antique art was restored to the Vatican. The left hand and the right forearm, wanting in the statue as discovered, were supplied by Montorsoli, a pupil of Michael Angelo.

APOLOGETIC, *a-pol-o-jet'-ik* (Gr., *apologeomai*, I speak in defence of), is a term applied to designate something said or written by way of excuse or apology for any action or person, as an apologetic essay.

APOLOGUE, *ap'-o-log* (Gr., *apologos*, a fable), is a fable, parable, or short fictitious story, designed to convey some moral truth. The fables of Æsop are of this class.

APOLOGY, *a-pol'-o-je* (Gr., *apologia*, a defence, apology), originally denoted a defence made in a court of justice in favour of one accused. As these were frequently carefully written out, and afterwards made public, it came to be applied to works written in defence of any particular person or doctrines. Of this nature are the apologies of Socrates, attributed to Plato and Xenophon. Dr. Newman's "Apologia pro Suâ Vitâ," an explanation of his reason for adopting certain opinions, is a modern work of this class. The word was adopted by the Christian fathers, and applied by them to works in defence of certain doctrines of Christianity. (See APOLOGETICS.) In ordinary language the word is used at present in the sense of asking pardon or excuse for some offence.

APOPTHHEGM, *ap'-o-them* (Gr., *apophthegma*, an utterance), a short pithy saying or maxim, conveying a great moral truth in few words. The wise men of antiquity, and the oracles of the gods, frequently expressed themselves in this way. Among the best-known collections of apophthegms are those made in ancient times by Plutarch, and those in modern times by Bacon.

APORIA, *a-por'-i-a* (Gr., *aporeo*, I doubt), is the name of a figure in Rhetoric, by which the speaker seems to be in doubt whether to say anything or not, or where to begin in a multitude of arguments; as, "Of what shall I first complain?" "Where shall I seek for help?" This figure is sometimes used with great effect.

APOSIOPESIS, *a-po'-si-op'-e-sis* (Gr., *aposiopao*, I am silent), is a figure in Rhetoric, in which the speaker breaks off abruptly in the middle of a sentence, leaving his hearers to supply what he was going to say.

APOSTLES, PICTORIAL REPRESENTATION OF.—The representative badges or attributes with which the several apostles are usually represented are, St. Peter with the keys; St. Paul with a sword; St. Andrew with a cross; St. James the Less with a fuller's pole; St. John with a cup and a winged serpent flying out of it; St. Bartholomew with a knife; St. Philip with a long staff, whose upper end is formed into a

cross; St. Thomas with a lance; St. Matthew with a hatchet; St. Matthias with a battle-axe; St. James the Greater with a pilgrim's staff and a gourd bottle; St. Simon with a saw; and St. Jude with a club.

APOSTROPHE, *a-pos'-tro-fe* (Gr., *apos trophe*, a turning away, or breaking off), is the name given to a figure in Rhetoric, when a speaker breaks of suddenly in the course of his speech, and addresses directly a person absent or dead, or an inanimate object, as if present and listening to him. It is also frequently used by the poets; and when well managed it has a very striking effect. It denotes strong passion, or emotion.

In Grammar, it is used to denote the omission of a letter or letters in a word; as *bor'o* for *borough*. The comma (,) employed to mark such omission, or which is used to mark the possessive case, is termed an apostrophe.

APPELLATIVE, *ap-pel'-la-tiv* (Lat., *appellatio*, a naming), a common, as distinguished from a proper name. An appellative is applied to a whole class, a proper name only to an individual; thus, "city" is an appellative, and London, Paris, and Vienna proper names.

APPENDIX, *ap-pen'-dix* (Lat., *ad*, to, and *pendo*, I hang), is something appended or attached to another. It is applied to a supplement, notes, or remarks placed at the end of a book. In Anatomy, it denotes a part attached to, yet in some measure distinct from another.

APPIAN WAY, OR VIA APPIA, *ap'-pi-an*, the oldest and most celebrated of the Roman roads, was commenced by Appius Claudius Cæcus, whilst censor, 313 B.C. It formed the great line of communication between Rome and Capua, and was 125 miles in length. It was at a later period extended to Beneventum and Brundisium, making its total length about 350 miles. In the construction of this great highway, hills and solid rock were pierced, hollows filled up, ravines spanned by bridges, swamps covered with embankments, and so stupendous was the whole design, so vast the sums expended upon it, that it became known as the "queen of roads." The pavement was formed of large hexagonal blocks of basaltic lava, jointed together with great nicety. Large portions of the Appian Way may still be seen at Terracina, and other places, and all those travellers that have described it, concur in praising its excellent workmanship.

APPLAUSE, *ap-plawz'* (Lat., *ad*, to, and *plaudo*, I clap my hands), properly signifies an approbation of something, expressed by clapping the hands. The ancients distinguished it from acclamation, which was expressed by the voice. Among the Romans persons were instructed in the art of giving applause, and there were masters for teaching it. Proficients let themselves out for hire to actors and others, and were disposed among the audience, so as to give it with effect. They were divided into *chori*, and placed opposite to each other, like the choristers in a cathedral. In Paris the professional applauders, *claqueurs*, are well known at the theatres.

APPOGIATURA, *ap-poi'-a-too'-ra* (Ital., *appoggiare*, to lean upon), in Music, a small note which precedes a larger one of greater duration, and which is touched lightly before sounding the principal note. The small note borrows one half,

and sometimes only one quarter, of the duration of the note preceding it.

APPOSITION, *ap-po-zish'-on* (Lat., *ad*, to, and *pono*, I place), denotes literally the act of putting or applying one thing to another. In Grammar, two or more substantives are said to be in apposition when they are in the same case, without any copulative conjunction between them, as "My lord the King."

APRIL, *ai'-pril* (Lat., *Aprilis*, from *aperio*, I open), is the fourth month of our year, and was so called from the earth beginning at this time to open her bosom for the production of fruits. The Anglo-Saxons named it Oster, or Easter-month, and the Dutch Grass-month. It contains thirty days.

April Fool. The first day of April is known as "All Fools' Day." From time immemorial a practice of hoaxing, or sending a person on a bootless errand, on that day has prevailed. In France, the victim of a trick of this kind is called *poisson d'avril*, an April fish. The Hindoos indulge in similar pranks on the last day of March, when they celebrate what is known as the "Huli Festival."

APSE (Lat., *apsis*), a semi-arch recess frequently placed at the east end, or choir, or chancel of the church built in the Anglo-Saxon or Anglo-Norman style. This form is no doubt derived from the early Christian basilica. (See *BASILICA*.) There are instances of three or four or even more apses. Large semi-circular or polygonal apses generally have radiating chapels within, as at Westminster Abbey.

APTERAL, *ap'-te-ral* (Gr., *a*, without; *pteron*, a wing), in Architecture, a term used particularly with reference to the temples of the ancient Greeks and Romans. It is applied to buildings which have no lateral columns, but may have porticos of columns projecting from their ends. The Greek temples were, for the most part, peripteral, as the parallelogrammic temples of the Romans were generally apteral prostyles. The latter style has been most frequently adopted in modern edifices.

AQUARIUM, *ai-quair'-i-um*, a vessel, or collection of vessels, containing water, either salt or fresh, in which living specimens of aquatic animals and plants are kept in a healthy state, by reason of their reciprocal action, and the plants absorbing the poisonous carbonic-acid gas given off by the animals, and in turn setting free the oxygen upon which animal life depends. The words *vivarium* and *aquarivarium* have been employed by certain writers to denote the same thing. More than two centuries ago marine animals were kept in confinement, and there is a drawing extant, bearing date, 1742, which pictures an aquarium containing zoophytes. The distinguished entomologist Esper, also kept aquatic insects, &c., in water, for the purpose of study, and Sir John Graham Dalyell, author of several works on Natural History, constructed aquaria for the purpose of studying the habits of marine animals. Some of these animals lived a very long time, and it is on record that one anemone, having been taken from the sea in 1823 was alive and well in 1873. Sir John's aquarium, however, never contained any plants, and the water must have been constantly changed. About 1839 aquaria of a more elaborate description were constructed, and agencies were established for the supply of animals and sea-water. The difficulty of procuring the latter was so great that

an artificial compound was resorted to for lack of the genuine article. Several attempts were now made by naturalists to preserve fresh-water and marine organisms. Mr. Ward, whose ingenious discovery, in 1841, of the method of growing ferns and other delicate plants in closed cases (see *WARDIAN CASE*) had already earned for him a world-wide reputation, stated, at a meeting of the British Association, that he had succeeded not only in growing sea-weeds in sea-water, but in sea-water artificially made; and, in 1842, Dr. George Johnston, of Berwick-on-Tweed, in the course of experimenting for another purpose, discovered that the animal and plant life of the sea could also maintain each other's health. He succeeded in preserving the delicate pink coralline in a living state for eight weeks, in unchanged sea-water. In 1847, Mrs. Anne Thynne, a lady living in London, who frequently surprised the scientific societies by exhibiting alive beautiful specimens of marine animals, wrote, "I wished to try whether I could adjust the balance between animal and vegetable life, and sent for shells and small pieces of rock, to which living sea-weed was attached." Previous to this she had aerated the water, by causing it to be daily poured backwards and forwards from one vessel to another several times in the open air. In 1849 Mr. Warrington conducted successfully experiments having a similar object, and in 1850 this gentleman communicated to the Chemical Society the result of a year's experiments—"On the adjustment of the relations between the animal and vegetable kingdoms by which the vital functions of both are permanently maintained." To illustrate this adjustment, Mr. Warrington kept for many months, in a vase of unchanged water, two small gold-fish and a plant of *Valisneria spiralis*; and afterwards he made a similar experiment with sea-water, weeds, and anemones, which was equally successful. Before Mr. Warrington published his paper, Dr. Lankester had kept stickle-backs, gold-fish, and other fresh-water animals, in jars containing growing sprigs of *Valisneria*. Mr. Gosse, the well-known marine zoologist, also laboured in the same field, although unacquainted with the experiments of Mr. Warrington, and his efforts to domesticate his favourite sea-anemones were tolerably successful. Mr. Price and Mr. Bower-tance also made experiments, and in 1853 an aquarium of considerable size was constructed in the Zoological Gardens by Mr. D. Mitchell. The aquaria now became so extremely popular as to be almost a mania, and Mr. Gosse and Mr. Warrington published formulæ for the manufacture of artificial sea-water. Since the construction of the aquarium in the Zoological Gardens, many large ones have been erected in many of the great European cities. Under the direction of Mr. W. Alford Lloyd, an immense aquarium was set up in the Jardin d'Acclimatation, Paris, in 1860; he also constructed one at Hamburg. There is a very large one at Brighton (opened 1872), at the Crystal Palace (1872), at Manchester, Southport, Scarborough, and other large towns. The Royal Aquarium and Winter Gardens, Westminster, was opened 1874. The aquarium at Brighton is perhaps the finest in the world. It is 715 feet in length by 100 feet in breadth, and contains numerous tanks, many of which are of great capacity. The largest (No. 6) contains 110,000 gallons of water, and has a plate glass front 130 feet long. This aquarium is constructed on a totally different principle from that

at the Crystal Palace. The tanks at Brighton are aerated by having fresh air constantly pumped into them, and there is no circulation from one tank to another, though each can be, when necessary, renewed with fresh sea-water. This is pumped by steam-power direct from the sea, and stored in underground reservoirs capable of holding 500,000 gallons. At the Crystal Palace aquarium, aeration is accomplished by carrying a main of water over the entire length of the tank, from which main a small tap carries a jet of water with great force into each tank, breaking the surface of the water contained in it and penetrating to the bottom, communicating small bubbles of air, which render it bright and sparkling. Constant circulation between each tank is maintained, and the storage in the reservoirs is five times the quantity in the show tanks. Mr. Hughes, of Birmingham, recommends the growth of the sea-lettuce (*Ulva latissima*) as suitable for aerating the tanks, and as affording food for the fishes.

Small Fresh Water Aquaria.—In stocking and keeping an aquarium at home, the great principle to be considered is the constant interchange of elements between the animal and vegetable kingdoms. (See *ANIMAL KINGDOM*.) The leaves of plants absorb carbon. Animals, on the other hand, require oxygen. The vegetable world is therefore continually absorbing carbon; from the carbonic acid given off the animals, and setting free oxygen, which the animals breathe, giving it back again in the form of carbonic acid gas, a balance is thus preserved between the two great divisions of organized beings. The other elements which enter into the composition of animal and vegetable structures circulate in a more obscure manner, but with equal regularity. To form an aquarium, we have merely to imitate nature. A good supply of plants must be introduced, to decompose the poisonous carbonic acid gas, and keep up a continuous supply of the vivifying oxygen, while particular care must be taken not to overcrowd the tank with animals. The vessels used for aquaria are constructed, either wholly or partly, of glass: a common propagating-glass, such as used by gardeners, is often employed. These glasses can now be obtained, fitted with proper stands, and manufactured from a clearer kind of glass than formerly. Glass tanks, of a rectangular form, are, however, preferable to vases, as they do not distort the objects seen through their sides, and are less liable to breakage. They should be wide and shallow, for water has the property of absorbing oxygen from the air if sufficiently exposed to its action. The most perfect form of tank is that invented by Mr. W. Alford Lloyd and known as the "slope-back tank." One side of this tank is formed of glass, the other three being composed of slate. This is a great advantage, as the marine animals are not, as a rule, lovers of light. The back slopes downwards, from the source of illumination to the lower edge of the glass front, an arrangement which enables objects to be seen in a slanting light, which exhibits their form and colour to the greatest advantage. Whatever kind of tank is used, it should be provided with a cover of sheet-glass, to keep out dust, and to prevent the more adventurous creatures making their escape. A layer of well-washed shingle or sand is laid at the bottom of the aquarium, and in this the roots of such plants as are provided with those organs are imbedded. A few irregular blocks of stone, placed upon the shingle, look much better than any fantastic minarets of sham rockwork formed of cement, and afford sufficient shelter for all animals of a retiring disposition. The *fresh-water aquarium* is filled with ordinary river or spring water, and serves to exhibit the animals and plants found in ponds and ditches. The best and most lasting plant is the spiral *Valisneria* (*Valisneria spiralis*), which is a fine grassy-looking weed, having perennial roots. Its long green leaves rapidly decompose the carbonic acid in the water, and consequently make it a capital purifier. The American water-weed (*Anacharis alismastrum*) is another good aquarium plant, but it must be frequently thinned, as it grows extremely fast. The different species of Duck-

weed (*Lemna*) and Pondweed (*Potamogeton*) are all applicable to the purposes of the aquarium naturalist. No animals should be introduced into the tank until the plants have been established sufficiently long (say three or four days) to properly aerate the water.

Contents of the Aquarium.—Of the animals suited for the fresh-water tank, fishes rank first. All the different kinds of carp, including the gold-fish, are easily domesticated. The tench, the miller's-thumb, the minnow, the stickleback, and the grig eel, are also suitable fish. The interesting class of *Batrachia* are generally represented by the common frog, the smooth newt, and the crested triton. Small water-tortoises and salamanders have lately been imported for aquaria. Some members of the class *Mollusca* are absolutely indispensable in a fresh-water aquarium, as they act as scavengers, and carefully remove the green film which forms upon the glass, and which, in their absence, would soon obscure the contents of the tank. The best molluscs are the pretty coil-shells (*Planorbis cornuus* and *carinatus*), the marsh-shell (*Paludina vivipara*), and the eared mud-shell (*Limnea auricularis*). It is doubtful whether insects ought to be admitted into aquaria which are intended merely for parlour ornaments; but the naturalist ought not to consider his tank complete unless the important class of insects is properly represented. Considerable care, however, must be bestowed on the selection, as some of the members of the beetle tribe are so bloodthirsty that they will even venture to attack the smaller fish. Some writers on the aquarium recommend artificial aeration; but when the balance of vegetable and animal life is properly adjusted, there is no necessity for resorting to any extraordinary means to insure a copious supply of oxygen.

The Marine Aquarium affords us the means of observing some of the most curious forms of animal life. The tank is filled with sea-water, which should be conveyed to its destination in clean stone jars, or in casks perfectly seasoned. When real sea-water cannot be obtained (though this emergency must now be a very rare one), artificial sea-water may be used, after having been prepared for the reception of animals by growing marine plants in it. Mr. Gosse has given the following simple formula for the preparation of this artificial water:—Common table salt, $3\frac{1}{2}$ ounces; Epsom salts, $\frac{1}{2}$ ounce; Chloride of magnesium, 200 grains troy; Chloride of potassium, 40 grains troy. These materials are to be added to a little less than four quarts of water. The green and red algae—particularly the "Green Laver" (*Ulva latissima*)—are the plants used, the dark-coloured weeds being inapplicable for aquarium purposes. (See *ALGÆ*.) The animals which form the glory of the marine tank are the sea-anemones (see *ANEMONES*) and madrepores. Besides these, the star-fishes, the sea-urchins, the barnacles, and the beautiful plumed worms called serpulæ and sabellæ, generally gain admission. The crab family furnish the humorous element in the aquarium; and it is impossible to observe the clumsy antics of some of them, particularly the hermits, with a serious countenance. The free swimmers are shrimps, prawns, and certain small fishes; but, as few of these can be preserved for long in the aquarium, they are generally omitted altogether. The scavengers of the marine tank are the periwinkles, cockles, whelks, limpets, and tops. In the marine aquarium it is particularly necessary to guard against overcrowding. Every animal requires a certain amount of room, a certain amount of air, and a certain amount of solid nourishment; therefore we cannot exceed these natural limits without injury to our whole stock. Artificial aeration may be resorted to by blowing air into our tank, or allowing a quantity of water to drip into it from a considerable height; but it is far better to keep the number of our animals within moderate limits, and to trust to the algae for a proper amount of oxygen. Sometimes the water in an aquarium will suddenly become turbid from no easily explained cause; and it will be found necessary to remove the animals to a temporary vessel, and to filter the water through sponge or powdered charcoal. Mr. Lloyd discovered that the opacity of the water could be destroyed by placing it in a dark closet.

AQUATINTA, *ai'-qua-tin'-ta* (Lat., *aqua*, water, *tinctus*, stained or dyed), a peculiar style of etching on copper or steel, in imitation of

drawings in sepia or Indian ink. It was invented by a German named Le Prince. The plate is covered with a ground of black resin and spirits of wine, to which the design is transferred from the paper on which it has been traced. The high lights are then stopped out, and the various shades and gradations of tint are procured by the action of nitric acid and water. The art is now rarely practised.

ARABESQUE, *ar-a-besk'* (Fr., after the manner of the Arabians), is a term synonymous with Saracenic or Mauresque, and is applied to any fanciful style of decoration combining scroll-work interlaced with flowers, fruit, leaves, and tendrils, and occasionally figures of men and animals. This style of ornamentation is supposed to have originated in the hieroglyphic emblems and figures used by the Egyptians to decorate their public buildings, dwellings, and utensils. It was borrowed from them by the Arabians, who, under the name of Saracens and Moors, overran Asia Minor and the north of Africa and Spain. The Moors have left beautiful specimens of this decorative style in the Alhambra in Spain, faithful copies of which may be seen in the Alhambra court at the Crystal Palace, Sydenham. They were obliged by the tenets of the Koran to confine themselves to the representation of the productions of the vegetable kingdom. The term arabesque is also applied to the grotesque decorations derived from Roman remains of the early time of the empire. The Etruscans ornamented their pottery and dwellings in this manner, introducing figures of men and animals; and the walls of the baths of Titus, discovered in the time of Leo X., were adorned with arabesque work, from which it is said that Raphael derived his idea of decorating the famous gallery of the palace of the Vatican in a similar manner. The Renaissance style of architectural adornment, in vogue about the time of Louis XV. of France, furnishes elaborate examples of enrichment, sometimes described as cinquantino arabesque.

ARABIAN, OR MOORISH ARCHITECTURE, *a-rai'-bi-an*, the style of architecture introduced into Europe by the Moors, the chief features of which are the peculiar horseshoe arch, and the elaborate system of ornamentation with which the walls of their buildings are adorned. The Arabs had no buildings of any architectural pretensions before the time of Mahomet; but after this period they had mosques built for public worship, which were designed by architects from Constantinople, who would naturally follow the leading features of Byzantine architecture. (See *BYZANTINE ARCHITECTURE*.) These features were gradually altered and amalgamated with the various styles already adopted in the public buildings of northern Africa and Spain, with the addition of ornament and brilliant colouring, until Arabian architecture reached its perfection in the Alhambra. Many attribute the introduction of modern Gothic architecture to the Moors, specimens of the light and elegant shafts and pointed arches of that style being found in the mosques and palaces of Fez, and cathedrals in Spain built before the adoption of the pointed arch in central Europe.

ARABIAN LANGUAGE AND LITERATURE. The Arabic language forms, with the Ethiopic, the southern branch of that great stock of languages commonly known as the

Semitic. It is divided into two principal dialects—the southern and the northern. The former, called also the Himyarite, though probably the source of the Ethiopic, is now all but extinct, and chiefly known by a few inscriptions; the latter is the language of the Koran, and is the spoken and written language throughout the whole of the Arabian dominions. The Arabic language is noted for the abundance of its roots, the great variety of its formations, and the syntactical delicacy of its construction. It has different dialects in different parts; as in Syria, Egypt, the Barbary states, &c. The best Arabic is spoken by the upper classes in Yemen. Its grammar was little cultivated until a century or two after the time of Mahomet. By war and conquest the Arabic was made the spoken and written language of the whole of Western Asia, of Eastern and Northern Africa, of Spain, and of some of the islands of the Mediterranean, in all which places it has left traces of its former occupancy. It is still the language of religion throughout Persia, the Turkish Empire, and all countries in which the Mahometan religion prevails. Of the early literary culture of Arabia we know little. That poetry flourished there at an early period, may readily be inferred from the natural character of the people. They are described as bold, valiant, fond of adventure, proud, and desirous of glory. The nomadic tribes, who, under their sheiks, wandered through the territories of Arabia Felix, had everything to favour the growth of poetry—quick feelings and a warm fancy, fostered and strengthened by their mode of life and the circumstances by which they were surrounded. Even before the time of Mahomet, the Arabs had their poets, who sang of the feuds of the tribes, and deeds of their heroes, and the beauty of their women. During the great fairs held at Mecca and Okadh, in the 5th century after Christ, poetical contests took place. The poems to which the prize was awarded were written in letters of gold, and hung up in the kaaba at Mecca. They were called *modsahabât*, i.e., gilt; or *moallakat*, i.e., suspended. Of these, seven poems have come down to us, and are characterized by deep feeling, high flights of fancy, richness of imagery and sentiment, a spirit of freedom, and an ardent feeling of revenge and love. The brilliant period of Arabic literature, however, commences from the time of Mahomet, whose doctrines of faith and life were collected and subsequently published, and constitute the Koran. This fixed the character of their language, and gave a new stimulus to their literature. In eighty years after his death, his followers had extended their power from Egypt to the Indies, and from Lisbon to Samarcand. Contact with more civilized nations tended to soften their rude character; but it was not till about 750, when the family of the Abassides became caliphs, that the arts and sciences began to progress. These were fostered at the splendid court of Almansar, at Bagdad (754-75); but it was Haroun-al-Raschid (786-808) that infused into his people an enduring love for them. He invited learned men from all parts to his kingdom, and munificently rewarded them. He caused translations to be made of the most celebrated works in Greek, Syriac, and other languages, and circulated them by numerous copies. The caliph Al-Mamun (813-33) offered to the Greek emperor five tons of gold and a perpetual treaty of peace if he would send the philosopher Leo for a time to instruct him. Under his reign, excellent

schools and large libraries, at Bagdad, Alexandria, and other places, were established. But while the dynasty of the Abassides were fostering learning at Bagdad, that of the Ommaïades were similarly engaged at Cordova, in Spain, which, particularly in the 10th century, was the chief seat of learning in Europe. Students came from France and other parts of Europe to study, especially mathematics and medicine, at Cordova. Besides the educational institutions at Cordova, the Arabs had established fourteen academies and numerous elementary and middle schools throughout the country. At a time when learning found scarcely any support or encouragement anywhere else, the Arabs were collecting and diffusing it to all parts of the world; indeed, the progress of the Arabs in learning is scarcely less remarkable than their success in conquest. In geography, history, mathematics, medicine, and physics, they have rendered important services, and many of their words are still to be found in the physical and mathematical sciences; as, algebra, alcohol, almanac, azimuth, zenith, nadir, &c. Geography is not a little indebted to the labours of the Arabs. They considerably extended the boundaries of the then known world by their expeditions of discovery; while the geographical treatises of Abulfeda, Edrisi, and others, are still interesting and valuable. After the 8th century, history came to be a favourite subject of study with them. Among their works of this class are the universal histories of Masudi, Tabari, Eutychius, the Christians Abulfaraj and Elmakin, and Abulfeda, Nuvairi, Soyuti, &c. Upon the history of the Arabs in Spain there are numerous works in the Arabic language. Theology and law, which is nearly related to it, were derived chiefly from the Koran, and formed the chief part of public instruction. They began to speculate on the contents of the Koran during the Ommaïade dynasty, which, with the introduction of the works of Aristotle, led to the formation of various sects of believers. The most celebrated exegeses of the Koran are by Samakhshari and Baidhawi. Their philosophy was related to the Koran in the same way that the scholasticism of the Middle Ages was to the Scriptures. It was of Greek origin, and was drawn chiefly from the works of Aristotle. Among their most distinguished philosophers were Avicenna and Averroes, both of whom have written commentaries upon Aristotle. Many of the Arabian philosophers were also physicians, and they made considerable advances in chemistry, botany, and the knowledge of diseases. Anatomy, however, made no progress with them, as dissections were prohibited by the Koran. Schools of philosophy and medicine were established, and flourished in various parts; as, Bagdad, Alexandria, Ispahan, Cordova, &c. The philosophers Avicenna and Averroes have both written able works upon medicine. On natural history wrote Damiri, Ibn-Baitar, and Kazwini. In mathematics the Arabs made great advances. In arithmetic they introduced the numerals now in use and decimals; and in trigonometry they adopted sines instead of chords. They simplified the trigonometrical operations of the Greeks, and extended the application of algebra. Astronomy was eagerly studied, for which they had famous schools and observatories, at Bagdad and Cordova. But with their progress in the sciences the Arabs did not neglect to cultivate poetry. Their verse gradually allied itself to the prevailing culture, and in their most advanced period of

civilization it took a highly artistic form. Except the dramatic, there is no kind of poetry which they have left unattempted; and they doubtless exerted a powerful influence upon modern European poetry. A recent critical writer says, "We find undeniable specimens at least two full centuries before Mahomet of poems which in vigour and polish yield to few ever composed in the Arabic or other language. Even at this early date, we find the metrical and rhythmical laws simple yet susceptible of the highest art, which have ever since regulated Arab poetry, already laid down in their completeness, and exemplified the former by a scansion of almost Horatian elegance and variety, the latter by a severe nicety that Pope himself might have admired, but could hardly have imitated."

Arabic Writing.—This is read from right to left, like all Semitic writings. The old form, known as Kufic (from the town of Kufa, on the Euphrates), was of Syriac origin, and was in use for about 300 years, but was superseded in the 10th century by another style, the Neshki, the characters of which are still in use. The consonants which resemble each other are distinguished by points, and the vowels by shape only.

Arabic Numerals.—The characters or figures 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, which should properly be termed Hindoo or Indian numerals; for they were borrowed, as well as the system of decimal notation, by the Arabs from the Hindoos. It is said that Gerbert, afterwards Pope Sylvester II., learned their use from the Moors in Spain in the 10th century. According to another account, Leonardo of Pisa introduced them into Italy in 1202. (See ALGEBRA.) Their employment was not general before the invention of printing, and considerable time elapsed before they came into general use. Accounts were kept in Roman numerals up to the 16th century. (See NUMERALS and NUMERATION.)

"ARABIAN NIGHTS' ENTERTAINMENTS," a well-known and very popular collection of Eastern tales, first made known to Europe by Antony Galland, a French orientalist, under the title of "Les Mille et Une Nuits" (The Thousand and One Nights), 12 vols., Paris, 1704-17. The work speedily became popular, and was translated into all the European tongues. Improved and more complete editions have since appeared. The best English translation is that by Edward William Lane, which was published in 1839, but which, though highly appreciated by scholars and orientalists, has failed to supersede the older version in popularity. These tales had long existed in the East before they became known to Europeans. Several manuscript copies of the original Arabic text are known to exist, and four editions of it have been published. It is supposed they are of varied origin—the most beautiful and fanciful being Indian; the tender and sentimental love tales, Persian; and the witty and humorous stories, Arabian; but all have been altered and adopted to suit the tastes of the town populations of Arabia, to whom the stories were told. The story that forms the union of the tales is, that the Sultan Shahriar, exasperated by the faithlessness of his bride, made a law that every one of his future wives should be put to death the morning after marriage. At length, Sheherazade, the daughter of the grand vizier, by the charm of her stories induced the sultan to defer her execution from day to day, till a thousand and one nights had passed away. By this time, Sheherazade was the mother of three children, whom she led before the throne of her husband, and so induced him to spare her life.

ARABICI, *ar-ab' i-si*, a sect which sprang

up in Arabia about the year 207, who held that the soul died with the body, and also rose again with it. Origen is said to have refuted their error, and prevailed upon them to abandon it. It originated in an opinion then held by many in the early church, that the soul of man was material. There were some revivals of this doctrine in the Middle Ages.

ARÆOSTYLE, *ar'-e-o-stile* (Gr., *araios*, wide, and *stulos*, a column), a term used by Vitruvius to indicate one of his five species of Grecian and Roman temples. It refers to the distance at which the columns of a portico or colonnade should be placed apart, which should be from four to five times the diameter of the columns. *Arceostyle*, applied to the proportioning of the space between columns arranged in pairs. The columns at the western entrance to St. Paul's Cathedral are arranged in this manner.

ARAMÆAN, OR ARAMAIC LANGUAGE, *ar-a-mæ-an*, the language of the country of Aram, a name literally signifying "high land," as distinguished from Canaan, or "low land," and applied to that district of country which comprised Syria, Babylonia, and Mesopotamia. The Aramaic belongs to the Semitic class of languages, and is divided into two principal dialects—the Western Aramaic or Syriac, and the Eastern Aramaic or Babylonian. There are also, as minor dialects, the Samaritan and Palmyrene. The Aramean language is peculiarly interesting, as having been generally spoken by the inhabitants of Palestine, from the Babylonian captivity to the final dispersion of the Jews, and was consequently the language spoken almost universally in the time of Christ. It was to the Aramaic version of the Old Testament that Christ referred and from which he quoted. (See BIBLE.) As a spoken language, it now exists only in some remote valleys of the mountains of Kurdistan. The Aramaic is generally the hardest, poorest, and least cultivated of the Semitic languages.

ARBALEST, *ar'-ba-lest* (Lat., *arcubalista*, a crossbow), a weapon of war, the precise date of whose first introduction is unknown; but, according to some, it was in use in the Roman armies as early as the time of Constantine. It is supposed to have been introduced into England by the Normans. It was disused in England as a weapon of war, in the 14th century. The arrows used with the crossbow were short and thick, and were called carrels or quarrels, from the French *carreaux*. In defending a besieged town or castle, the crossbowmen shot through a small window or wicket, known as the *arbalistina*.

ARCADE, *ar-kaid'* (Fr.), a term applied to a series of arches of any form supported on pillars either inclosing a space before a wall or any building which is covered in and paved, or, when used as an architectural feature, for ornamenting the towers and walls of churches entirely closed up with masonry. The cloisters of the old monasteries and religious houses were, strictly speaking, arcades; and the covered walk round Covent Garden Market is an arcade, wrongly called a piazza. The term is also applied to a covered passage, with shops on either side, as the Lowther and Burlington arcades in London, or the more elegant arcades in Paris. The finest specimen in Europe is the arcade which runs round three

sides of St. Mark's Square, Venice. Beautiful specimens of the ornamental arcade may be found in many of our cathedrals and churches, as well as in many ruins; among which may be mentioned that of the old refectory at Westminster Abbey, and the striking and magnificent remains of Glastonbury Abbey, Somersetshire. In some mediæval buildings there are internal as well as external arcades. The cathedrals of Pisa and Lucca, and the English cathedrals of Wells and Lincoln, have arcaded fronts.

ARCHITECT, *ar'-ke-lect* (Gr. *architekton*, the chief fabricator), a person skilled in architecture, or the art of building, who forms plans and designs for edifices, and under whom the work is conducted to completion. A good knowledge of geometry is an indispensable qualification in an architect; he should also be expert in perspective drawing. He is generally paid by a commission—5 per cent. ordinarily—on the amount of money expended.

ARCH, TRIUMPHAL, was a structure raised by the Romans to celebrate a victory, some grand historical event, or to add a greater lustre to the commemoration of the military deeds of a victorious general. These monuments had their origin in the custom of adorning with the spoils of war the gate by which a successful military leader entered Rome on his return from the battle-field. In time, these temporary monuments gave place to others of an enduring nature, such as stone or bronze. The *arcus triumphalis*, as this kind of structure was termed by the Romans, was generally erected in some main thoroughfare. The design was commonly either one large arch, or one large central arch, with one or two smaller ones at each side. In every case the fronts and sides of the structure were ornamented with trophies, the entablature being surmounted with some piece of sculptural allegory, beneath which was an inscription narrating the deeds of the hero in whose honour the arch was erected. Many of these celebrated structures are still in existence, the most remarkable being—the arch of Augustus at Rimini; the arch of Trajan at Beneventum, and another at Ancona; at Rome, those of Constantine, Septimius Severus, Drusus, Gallienus, and Titus; the most beautifully-proportioned, and, at the same time, the oldest, being that of Titus, whose conquest of Judea it was built to celebrate. The triumphal arch which is in the most perfect state of preservation is that of Constantine. Many similar monuments of departed Roman greatness are in existence in various parts of France, Greece, Spain, and Egypt. In modern days France has the greater number of these structures. Paris possesses the triumphal arches of the Porte St. Denis and St. Martin, built respectively in 1673 and 1674, to celebrate the victories of Louis XIV. The fine Arc du Carrousel, forming the western entrance of the Tuileries, erected to the honour of the French armies, was commenced in 1806, and finished in 1809, its height being 47 feet, its breadth 55. Surmounting the structure is a grand equestrian group, formed of a chariot, to which four horses are yoked, the steeds being guided by the allegorical statues of Peace and Victory. But the grandest and most colossal triumphal arch erected by the moderns is that standing at the end of the Avenue des Champs Elysées, at Paris. It was erected in commemoration of the victories of Napoleon I. and his armies, and, al-

though commenced in 1806, was not completed till after the revolution of 1830. It has three arches, the height of the central one being 95 feet. In the interior are graven the names of the most celebrated French generals, with that of their leader. The English capital possesses only two structures of this kind—the arch at Hyde Park, upon which the equestrian statue of the Duke of Wellington is placed, and the Marble Arch, at the north-eastern angle of Hyde Park, whither it was removed from the front of Buckingham Palace in 1851. The original cost of the erection was £80,000.

ARCHÆOLOGY, *ar'-ke-ol'-o-je* (Gr., from *archaios*, old, ancient, and *logos*, a discourse), the name of the science which causes us to become acquainted with the antiquities of nations that have risen and fallen, and the remains of various kinds which throw a light upon the history of those that exist at the present time. The term is capable of a very widely-extended signification, including everything that is connected with the rise and progress of any nation, its history, laws, religious observances, public and private buildings, manners, and customs of all classes of the people, the arts in use among them, and the extent of their acquirements in science and scientific discoveries. The archæologist seeks to study and preserve any materials which tend to elucidate the subjects already mentioned, and these materials naturally resolve themselves into three great classes each capable of further subdivision. The first class may be considered to consist of all records, written or printed, legal documents, old chronicles, diaries of a public or private nature, State papers, letters, &c. The second may be termed oral, or traditional, in contradistinction to the first, which may be broadly called written archæology, and consists of the ballads, legends, and folk-lore of a people, their sports, superstitions, and the rise and origin of local customs, proverbs, and expressions. The third, termed monumental archæology, consists of works of art, paintings, sculptures, coins, medals, glass, pottery, utensils of wood, metal, and other materials; tools of every description, armour, weapons, carriages, boats, roads, canals, walls, encampments, burial-places, earthen mounds for purposes of defence or sepulture, and even human remains and those of animals becoming allied with geology, and embracing the entire range of human progress from the infantile stage of primeval arts to the earliest period of written records. Every country possesses, in a greater or less degree, relics of antiquity of the greatest interest to the archæologist, and the study of archæology has been largely promoted by the publication, at the expense of the State, in various countries, of national chronicles and other documents. (See *ANTIQUITIES*.)

ARCHAISM, *ar'-kai-ism* (Gr., *archaios*, ancient), is a term employed to denote the use of an obsolete word or phrase, in order to give an air of antiquity to the passage in which it occurs.

ARCHER. (See *ARCHERY*.)

ARCHERY, *ar'-che-re*, the art of shooting with a bow and arrow, so called from the Latin word *arcus*, a bow. It must have been practised at a very early period; for we are told that Hagar, in order not to see her son die, set herself down a good way off, as it were a bow-shot; and

soon after it is said that Ishmael dwelt in the wilderness, and became an archer. The bow and arrow are frequently mentioned in Scripture, more particularly in the accounts of the wars of the Jewish people. King David commanded the use of the bow to be taught. The Greeks and Romans employed archers, and the ancient Egyptians were expert bowmen. The Assyrian sculptures recently discovered represent archers in chariots, in warlike and hunting expeditions. Indeed, down to the introduction of gunpowder, the bow-and-arrow was an implement of warfare among all nations in all states of civilization. Great dependance was usually placed upon the archers in war; and frequently the success of a battle has been attributed to their means, as at Cressy, Poitiers, and Agincourt. It is believed that the long-bow was common in England long before the Saxon invasion. The Saxons were expert archers, both in battle and in field sports. The Normans brought with them the arbalest, or cross-bow; but, from the reign of Edward II., the long-bow, the favourite national weapon, seems to have been fully established. Its popularity is shown by the importance given to the skill in archery of the hero of the ballad-singers, Robin Hood and his associates. Edward III. directed the sheriffs of shires to see that the people exercised themselves on Sundays and holidays in archery, in place of following useless or unlawful games or amusements; and to provide bows and arrows for use in the French wars. He also embodied a company of soldiers known as "Archers of the Guard." In 1392, an Act of Parliament was passed, making it compulsory on all persons employed as servants to practise archery; and a few years afterwards, the battles of Homildon and Shrewsbury were won by the archers. A body of French archers was organized by Charles VII. in 1448; but they never attained the skill of the English bowmen, and, to make up for the deficiency, Scotch archers were employed. Under Edward IV. a precept was issued, commanding that every Englishman and Irishman in England should have a bow of his own height; and butts were ordered to be set up in every township for the inhabitants to shoot at; and, if any one neglected the use of his bow, he was subject to a fine. In the reign of Henry VIII. it was ordained, that every man under sixty, except spiritual men, justices, &c., should use shooting with the long-bow, and have a bow and arrows continually in his house; that every father shall provide a bow and two arrows for his son when he shall be seven years old; and that every servant above seventeen and under sixty years of age shall pay 6s. 8d. if he be without a bow and arrows for one month; and that butts should be set up in every township. After the destruction of the Spanish Armada, fears being entertained lest the King of Spain should send an emissary to attempt the life of Queen Elizabeth, a number of noblemen of the court formed themselves into a body-guard, for the protection of her person, and, under the denomination of the "Companie of Liege Bowmen of the Queene," had many privileges conferred upon them. Upon the accession of James I. this company was disbanded, although those who composed it retained the privileges, which had been conferred upon them by Elizabeth. Upon the breaking out of the civil war, Charles I. re-organised this body-guard, which attended him against the parliamentary forces, and afterwards emigrated with Charles II. At the Restoration this com-

pany was maintained, and, under the title of the "Royal Company of Archers," received a new charter; it afterwards merged into the Artillery Company of London. Recently, archery has come to be revived as an amusement, and societies have been formed for the practise of it. One of the largest and most flourishing of these societies is the "Royal Company of Archers of Scotland." It owes its origin to the commissioners appointed by James I. of Scotland to superintend and regulate the practice of archery throughout the country; and in 1676, a number of the most expert archers were selected to form a body-guard for the king, and received the official title they now bear. They claim the honour of acting in this capacity on the occasion of Royal visits to Edinburgh, and they now constitute part of the royal household in Scotland.

Practice of Archery.—The principal instruments of archery are the bow, string, arrows, glove, and brace. Bows are of two kinds, called self-bows and back-bows. Self-bows are those that are made of only one piece of wood, the best being foreign yew. Back-bows are composed of two kinds of wood, being strengthened by a piece of ash or other tough wood, firmly glued to the back. An arrow is furnished with three feathers, one of which, of a different colour from the others, is placed uppermost on the string, and is called the cock-feather. The piles or heads are made either blunt or sharp; the advantage of the former kind being, that they are more easily extracted than the latter. The weight of an arrow should be proportioned to the strength of the bow. For bows of 5 feet, arrows of 24 inches are commonly used; and for those of 5 feet 9 inches, arrows of 28 or 29 inches. The neck of the arrow is usually cased with horn, and should be made so as to exactly fit the string. The shooting-glove is used to protect the fingers from being injured by the string, and consists of three finger-stalls, back-slips, and a cross-strap buttoned round the wrist. The brace is a piece of stout polished leather, buckled round the bow arm, to protect it from the string, as well as to allow the string to glide sharply and quickly over it. Besides these, there are the quiver, a tin case for holding the arrows not immediately in use, and the belt, worn round the waist, from which are suspended the tassel for wiping the arrows, and the grease-box, containing a composition with which the fingers and brace are occasionally anointed, and which has also a pouch for holding arrows intended for present use. To be a good archer demands long and continuous practice. The muscles of the body must be brought into a certain degree of strength and firmness, the mind must be calm and collected, and the eye steadily fixed upon the mark. The principal points to be attended to in practice are standing, nocking, drawing, holding, and loosing, on each of which much useful information will be found in the "Toxophilus, the School of Shooting," of Roger Ascham. The distance to which an arrow can be sent by a good archer is generally from 200 to 250 yds.

Royal Toxophilite Society, a society for the practice of archery, founded in 1781 by Sir Ashton Lever, and representing the two older bodies—the Finsbury Archers and the Archers' Company of the Honourable Artillery Company. The practice-ground was originally the garden at Leicester House; but, in 1832, they removed to the inner circle of the Regent Park, where an Archers' Hall has been erected. The title "Royal" was conferred when the Prince of Wales (afterwards George IV.) became patron in 1787. There are many local Toxophilite or Archery Societies.

Archery Competition.—The circular target is marked by concentric rings of red, white, and black, the centre, or "bull's eye," being gilt. In reckoning the scores, different values are attached to the hits. The number of those in the gilt being multiplied by nine; in the red, by three; in the inner white, by two; those in the black having one fourth added; and those in the outer white have simply the numerical value.

ARCHITECTURE, *ar-ki-tel'-ture* (Lat., *architectura*, art of building; Gr., *archos*, chief. and *tekton*, a builder or workman), the science of

building or construction, consisting of three principal divisions—civil, naval, and military architecture. Civil architecture, is that branch of the science which instructs us in the art of erecting buildings of a public and private character. The construction of buildings, such as churches, theatres, and houses of all kinds, belonging to architecture, properly so called; while that of bridges, docks, harbours, tunnels, breakwaters, &c., is the especial province of the civil engineer. Naval architecture, in which the English particularly excel, treats of the different methods of building ships and vessels of all kinds (*see SHIPBUILDING*); and military architecture is the art of constructing works of defence (*see FORTIFICATION*.) There are numerous styles of this important art, notices of which will be found under their respective headings. (*See ARABIAN, ASSYRIAN, BYZANTINE, CELTIC, EGYPTIAN, GOTHIC, GREEK, HINDOO, NORMAN, ORDERS OF ARCHITECTURE, RENAISSANCE, ROMAN ARCHITECTURE, &c.*) The science generally may be broadly considered under three grand divisions—ancient, mediæval, and modern; in the first of which it may be traced from its origin to its improvement under the Greeks and Romans; in the second, its state and style under the Goths, Saxons, and Normans; and in the third, the present practice of the art, and its adaptation to the requirements of our own times. Architecture in its early stages seems to have advanced hand-in-hand with civilization. The necessities of man would at first induce him to seek for some means of shelter and protection from the heat of the sun, the cold wind, and drenching rain, in the construction of the simple cone-shaped hut of poles, interlaced with osiers and twigs, covered with bark, and plastered with mud, or the adaptation of the rude cave, which chance had thrown in his way, as a temporary retreat from the inclemency of the weather. After a while, when the first germs of society and social life appeared, and small communities were formed by families living in close proximity to each other, for mutual protection, attention was naturally directed to the construction of edifices, presenting, at first, greater durability and convenience, and afterwards some rude attempts at decoration, that the dwelling of the chief of the associated families, or the building in which any ceremonies of a religious or public nature were performed, might be distinguished from the huts of the community at large. The nature of the materials employed chiefly depended on local circumstances. Where timber are plentiful, posts and cross-pieces were the original type of the column and architrave of later times; while abundance of stone gave rise to another style. In China and Tartary, the primitive tent may be traced in the existing forms of buildings. The dwellings of the pre-historic ages in Europe, so far as can be judged from the remains found, were sometimes underground, like the “*Piets’ houses*” of the Orkney Islands, and in lake districts wooden huts erected on piles, relics of which have been discovered in Switzerland, Sweden, Italy, and Ireland, and similar huts once erected in the marshes of our own country as late as the Saxon times. The most simple structures in stone that can be mentioned are the circular and oblong inclosures made by the Druids and priests of the Celtic nations, of rough, unhewn, upright blocks, surmounted by similar pieces laid transversely from top to top of these rude columns. (*See CROMLECH.*) The next step would be the construction of rough irregular

walls, exemplification of which may be found in the cyclopean walls of Tiryns, built by the Pelasgi, and the defensive works round Mycenæ. These Grecian structures, and the tomb of Atreus, near Mycenæ, adorned with rude figures supposed to represent lions, with similar remains in Italy, such as the Etruscan walls at Fiesole, represent the second stage in the constructive art of building, which would rapidly advance from this point. The Egyptians, Assyrians, and Persians, the rulers of the known world in early ages, soon discovered the convenience and comfort of dwellings made of brick and stone, and in a short time carried their architectural works to an incredible extent. At this period, ornament began to be combined with mere building in stone; and from this combination architecture may be considered to have been produced; for ornament is essential to architecture, and without the appliance of decorative features no building can be said to possess any architectural design. The pyramids; the ruins of Andera in Upper Egypt; the remains of Persepolis, so vast and grand 1,300 years after its destruction by Alexander the Great, that the Arabs of that date imagined the city to have been built by the agency of evil spirits; the discoveries at Nimroud and Khorsabad; the sculptured relics of past ages that still exist throughout the land of Egypt, all these bear silent testimony to the constructive powers, and wonderful mechanical contrivances, of men whose buildings, for extent and grandeur and sublimity of conception, far surpass any structures of our own times, though they are unequal to them for harmony of proportion and symmetrical beauty. That architecture was brought to great perfection by the Jews, the temple and palaces built by Solomon furnish abundant proof, and the gates and fortifications of the sacred city; and after this period Babylonian architecture reached its culminating point under Nebuchadnezzar, the most magnificent buildings of that empire having been raised by him after models and ideas probably suggested by the grand and gorgeous works at Jerusalem. From Egypt and Assyria, the Greeks, in all probability, derived their knowledge of architecture; the rows of columns in a Grecian temple, surmounted by the flat and massive architrave, bearing a strong resemblance to the heavy square roofing of the Egyptian palaces and banqueting-halls, raised on sculptured supports of massive size and cumbrous appearance. But the gloomy magnificence of the buildings of Egypt was not copied by the Greeks, who substituted forms of beauty and symmetry, and were influenced by a due regard for proper proportion of length, breadth, and height, in making designs for their temples and public buildings. They also changed the stiff imitations of the human figure, as it appears in specimens of Egyptian sculpture, into copies of men and animals, faultless in outline, for the adornment of frieze and portico; and for the colossal images that were hewn by the Egyptians out of the living rock with infinite labour and toil, they produced exquisitely chiselled statues. Grecian architecture may be considered to have reached its height about 440 B.C., when the sculptor Phidias flourished, and Pericles, one of the first of Grecian statesmen, lived. In an ancient province of Italy, then called Etruria, now named Tuscany, there lived a people who had attained, some 350 years prior to this period, a high degree of civilization, proofs of which are given in the figures, vases, cups, sarcophagi, and other articles made by them, which still exist

From this nation the Romans doubtless derived the greater part of their customs and ceremonies; the Etruscans were well skilled in building, and their architects designed, built, and adorned the temples of the gods and great public works of ancient Rome under her seven kings. The temple of Jupiter Capitolinus, and the arched sewer (the Cloaca Maxima), as well as the aqueducts that were first built to supply Rome with water, show that they well understood the science and practice of building, and made practical application of the utility of the arch, which the Egyptians and Greeks neglected, although evidence exists to show that the former nation at least were well acquainted with, though they rarely used, the principles of its construction. The ancient inhabitants of Mexico and Peru, the predecessors of the people dwelling there at the time of the invasion by the Spaniards, erected buildings in which the column and a rude approach to the arch appear, and their pyramids were nearly as colossal and even more numerous than those of the Egyptians. When Greece was conquered by the Romans, the knowledge that they had acquired of the science of building was extended by their intercommunication with the Greeks, who had improved the art to the utmost extent of their powers by blending utility with elegance. (See ORDERS OF ARCHITECTURE, and separate articles on ARABIAN, ASSYRIAN, BRITISH [EARLY], BYZANTINE, CHINESE, EGYPTIAN, EARLY ENGLISH, ETRUSCAN, GOTHIC, GREEK, INDIAN, JEWISH, LYCIAN, MEXICAN, PERSIAN, and ROMAN ARCHITECTURE.)

Architectural Societies. An Architectural Club was established in London in 1791, and shortly afterwards an Architectural Society was formed. The Royal Institute of British Architects was founded in 1834, and a second Architectural Society (established in 1831) was united to the Institute in 1842. The Architectural Association began about 1846. The Architectural Museum was opened at Westminster in 1869.

ARCHITRAVE, *ark-i-traiv* (Gr., *archos*, chief; Lat., *trabs*, a beam), in architecture, the beam, or portion of the entablature that rests immediately on the columns, and is surrounded by the frieze. It is also known as the epistylum, or epistyle. The architrave of a door is the moulding and woodwork surrounding the opening, the head being called the *lintel*, and the sides the *jambes*.

ARCHIVES, *ar'-kives* (Gr., *archeia*, public registries), strictly, the record office in which public papers and documents are kept; but, by a common figure, the term is also applied to the papers or documents themselves. The archives of ancient Rome were in the temple of Saturn. (See RECORDS.)

ARCHIVOLT, *ark-i-volt*, the ornamented band of moulding round the arch stone of an arch terminating horizontally on the impost.

ARCH-LUTE. (See LUTE.)

ARENA, *a-re'-na* (Lat., *arena*, sand), that part of the amphitheatre where the combats of gladiators and wild beasts took place, from its being usually covered with sand. It is now frequently used in a general sense to denote a place where any contest or display of power takes place.

ARETINIAN SYLLABLES, *a-re-ti'-ne-an*, the syllables *ut*, *re*, *mi*, *fa*, *sol*, *la*, used by Guido d'Arezzo for his system of hexachords. (See HEXACHORD.)

ARGENT, *ar'-jent* (Fr., *argent*, silver), in Heraldry, a term to express the metal silver in armorial bearings. It is generally left white in coats of arms, whether coloured or engraved.

ARGUMENT.—The argument prefixed to a book, as to one of the divisions of Milton's *Paradise Lost*, is that which shows the purport or contents of it.

ARIA, *air'-e-a*, in English, air, a rhythmical song, as distinct from a recitative; almost invariably a song for one voice, supported by instruments. *Arietta* is a short melody.

ARIOSTO'S POEMS. (See ORLANDO FURIOSO and ORLANDO INNAMORATA.)

ARISTOPHANES, COMEDIES AND SATIRES OF, *a-ris-tof'-a-nees*. The plays of Aristophanes are the most considerable remains we possess of the Athenian literature of the fourth century before the Christian era. For about forty years he was the most prominent author of his time, the most severe satirist, the greatest wit and humorist, and occasionally gave evidence of poetical powers of a very high order, especially in lyrical effusions. Fifty-four comedies have been attributed to him, and modern criticism has arrived at the conclusion that forty-three of these were genuine productions of his pen. Eleven are now extant, and some fragments of others have been preserved. He is the representative of what is known to scholars as the "old comedy" of Athens, which covered the period of about eighty years, from the banishment of Themistocles to the establishment of the academy by Plato. That memorable period, the most brilliant, perhaps, in Athenian history, included the supremacy of Pericles, the career of Alcibiades, the prominence in public affairs of the demagogue Cleon, and the teaching and death of Socrates. The drama then occupied the position which in modern times it has divided with a free press, as the satirical censor of public and private morals and manners, laughed at the affectations of the wealthy and extravagant, unmercifully "chafed" the acts and speeches of official personages, even the highest, and with a comical and daring irreverence included in its scope of ridicule the greatest thinkers of the time, even Socrates himself. Political notorieties were brought upon the stage in the persons of actors, "made up" by masks and costumes into ludicrous imitations of the originals. The citizens of Athens roared with laughter when they saw the burlesque double of the long-winded orator, whose speeches had a few days before been listened to with something like apprehension, mingled with admiration. If, in our times, we were to see the cartoons of *Punch* and the sketches of *Vanity Fair*, embodied by living actors—the gross caricatures of Rowlandson and Gilray vivified—in connection with the most unsparing ridicule of philosophic speculations and political and social habits, reckless personalities and scurrility lightened up by brilliant wit, overflowing humour and mimicry exhibited in the most unexpected manner, and very often interludes of exquisite poetry and the most perfect command of elegant and musical language, we might obtain some definite notion of the old comedy of Athens of which Aristophanes was the most conspicuous illustrator. The Athenian drama, tragedy, and comedy alike, had its origin in the festivals of Dionysius; but tragedy, which

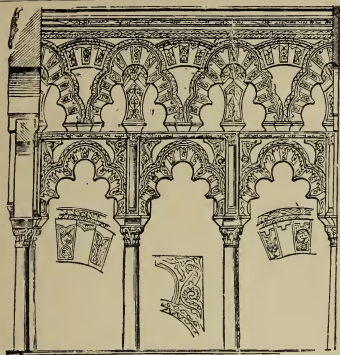
had achieved its highest successes in the works of Æschylus, Euripides, and Sophocles, gave way to comedy, as the sterner and more heroic times which produced the heroes of Marathon and Aristides the Just were superseded by the more brilliant if more luxurious age of Pericles, and the prevalence of the democratic element. In the art of satirical banter—banter with the purpose of exposing imposture and pretence and patriotically vindicating right—Aristophanes had no superior or equal among the dramatists of the period; and in copiousness and elegance of diction, in the mastery of the purest Attic language, he probably had no rival. A recent critical writer says, "His purest and highest faculty is revealed by those wonderful bits of lyric writing in which he soars above everything that can move laughter or tears, and makes the clear air thrill with the notes of a song as free, as musical, and as wild as that of the nightingale invoked by his own chorus in the *Birds*. They are the strains, not of an artist, but of one who warbles from pure gladness of heart in some place made light by the presence of a god. Nothing else in Greek poetry has quite this wild sweetness of the woods. Of modern poets, Shakespeare alone, perhaps, has it in combination with a like richness and fertility of fancy." This is high, but deserved commendation; and it is no marvel that for more than two thousand years Aristophanes has been the favourite alike of the scholar and the poet. The fact that some of his plays were recited at the great Dionysian festivals may account for the grossness which occasionally disfigures them. He had no scruples about pleasing his audience, and the majority of the audience looked for and delighted in coarseness. We have to refer to the most brilliant period of our own dramatic poetry, the Elizabethan age—to the obscenity which, even so fine a spirit as Massinger permitted to be introduced into the exquisite *Virgin Martyr*, to please "the 'roundlings," and Shakespeare stooped too in *Measure for Measure*—to understand why the popular demand for grossness was ministered to by so easy-going a dramatist as Aristophanes. He never troubled himself about an ideal morality, was very well content to take religion and ethics as he found them, in truth, like Gallio, "cared for none of those things;" and openly laughed at Socrates and others for insinuating doubts as to the old beliefs, which practically influenced nobody, at any rate, practical men of the world, as Aristophanes himself was, and were a great deal less troublesome than new-fangled notions. What he intensely disliked was pretence, insincerity, self-seeking, and mob-rule; and he was patriotic enough to reverence the traditional glories of his native land, which inspired his imagination to the ignoble realities of political and social life which surrounded him. He satirized unmercifully and caricatured with reckless vivacity. It is very possible, indeed, that his genius has in many instances influenced the verdict of history, and that Creon and others have suffered in the opinion of posterity as a result of his burlesque representations of their personalities and acts. The philosophical school of Sophists was attacked by him in the *Clouds*; but in the attack he included Socrates, who had little indeed in common with the school, and who, it may well be supposed, Aristophanes never took the trouble to understand. He makes the philosopher appear in the character of a systematic corrupter of

youth. Cleon, the demagogue, was so scarified in one of his plays, that none of the actors dared to represent the character, and Aristophanes himself, who feared nobody, played the part. The satire in the play of the *Knights*, and in a previous one, the *Babylonians*, in which Cleon also figures, is very severe, imputations of profligacy and dishonesty being scattered broadcast. On the stage he produced striking effects by the most unusual means—the beautiful chorus of the birds, the comical croaking of the famous frogs, and the grunting of pigs. Sometimes he invented words of prodigious length, one being composed of 170 letters. In his long career he enjoyed a strange immunity, and even some of those whom he attacked and their friends expressed their admiration of his genius. Plato even overlooked the attacks on Socrates, and recommended the study of the play of Aristophanes as the best mode of acquiring the purity of the Attic dialect. The earliest modern edition of the plays (including, however, only nine) was printed at the Aldine press in Venice, in 1498; a Latin version by Bekker appeared in London in 1829; and in 1837, a translation in blank verse, by Wheelwright, was published in London. Mr. J. H. Frere, Mr. Kennedy, and others have translated some of the comedies. Critics now classify the plays into three groups:—In the first, the author displayed an unrestrained freedom of political satire; in the second, he exhibited more reticence and caution; and in the third, he approached the more refined style of what is known as the Middle Comedy. (See GREEK LITERATURE.)

The Extant Plays.—The eleven surviving comedies, and the dates of their appearance, are—the *Acharnians* (425 B.C.), in which the peace party at Athens are supported. The *Knights* (424 B.C.), in which Cleon is attacked. The *Clouds* (423 B.C.), essentially an attack on the new spirit of enquiry and intellectual culture. The *Wasps* (422 B.C.), a satire on the Athenian love of litigation. The *Peace* (421 B.C.), performed at the Great Dionysia shortly before the conclusion of the treaty of peace with Sparta, an advocacy of a peaceful policy. The *Birds* (414 B.C.), in which the birds build a city in mid air, so as to cut off the gods from men. The *Lysistrata* (411 B.C.), another plea for "peace at any price," in which the women appear as overruling the men. The *Thesmophoriazuse* (411 B.C.), a satire on women and Euripides, the tragic poet. The *Frogs* (405 B.C.), one of the most famous of all the plays, chiefly a literary criticism on the comparative merits of Æschylus and Euripides, and in which the famous croakery chorus occurs. The *Ecclesiazuse* (393 B.C.), which represents women as obtaining political power and decreeing a new constitution. The *Plutus*, an allegory, in which good men are made rich and bad men poor.

ARMED AT ALL POINTS, a term which, in the military language of the feudal age, was given to a knight, baron, or other warrior, who was clothed from head to foot (Fr., *cap-à-pie*) in armour, and was also provided with every weapon necessary for attack. Shakespeare describes the Ghost in *Hamlet* as being "armed at all points, completely cap-à-pie."

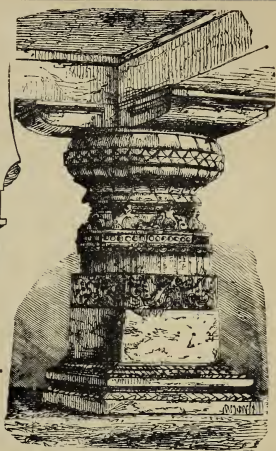
ARMENIAN LITERATURE dates from the introduction of Christianity into the country, and its most flourishing period was from the 4th to the 14th centuries. Their writings are chiefly theological works and chronicles, and a great part of them are translations of Greek and Syrian authors, some of which are now only preserved to us through the Armenian; as the Chronicle of Eusebius; some of the writings of Philo; homilies by Chrysostom, Severianus, and Basil



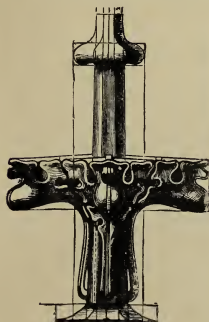
MOORSQUE SCREEN.—STYLE ALHAMBRAIC



ARABIC CAPITAL,
ALHAMBRA.



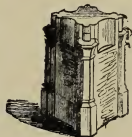
ROCK CAVE STYLE.



GOthic INITIAL.



NICHE MOORSQUE.
ALHAMBRAIC STYLE.



BASE OF COLUMN.



CAPITAL OF COLUMN.



COLUMN—EAST INDIAN STYLE.



GOthic DOORWAY.

the Great, &c. The Bible was translated by Miesrob and his scholars, A.D. 411. (See BIBLE.) The best edition is that published at Venice, 1805. Of Armenian historical and geographical works, several have been preserved to us. The most important theological and philosophical authors are David, the translator and commentator of Aristotle, and Esnik, both of whom flourished in the 5th century; Joannes Ozniensis, in the 8th; Nerses Klajensis, in the 12th; and Nerses Lampronensis. In poetry, the literature is very poor. With the 14th century, Armenian literature begins to sink, and only a few important works have since appeared at distant intervals. The Armenian language belongs to the Indo-Germanic stock. No traces remain of the original alphabet. The present alphabet was introduced about the beginning of the 5th century. The old Armenian, the language of literature, is no longer a living tongue, but the version of the Bible in that language is still publicly read in the churches, while the new, or vulgar Armenian, is split up into four dialects, and is much corrupted by Turkish.

ARMLET, *arm'-let* (Lat., *armilla*), a bracelet or large ornamental ring worn by the ancients upon the wrist or arm. With the Medes and Persians, it was worn by both the male and female sex; but, with the Greeks, it appears to have been adopted by the women only. The wearing of the armilla, or armlet, is of high antiquity; and we read in 2 Sam. i. 10, that the Amalekite who slew Saul "took the crown that was upon his head, and the bracelet that was upon his arm." It was a custom with the Roman generals to bestow armillæ upon soldiers, as a mark of respect for extraordinary deeds of valour. The Danes, Norsemen, and Anglo-Saxons also wore the armlet. Armlets of gold have been dug out of the bogs of Ireland, and several have been found in England.

ARMORIAL BEARINGS, COATS OF ARMS, OR ARMS, *ar-mor'-i-al*, terms applied, collectively, to the shield and its charges, the crest, helmet, and motto belonging to any gentleman entitled to bear arms. The supporters, belonging, with very few exceptions, solely to peers of the realm, are also included in this expression. It is, however, strictly applied to the devices on the shield only. (See HERALDRY.) The assessed taxes on armorial bearings are £2 2s. annually; but if not used on carriages, £1 1s. More than 65,000 British families are known to possess armorial bearings.

ARMOUR, *ar'-mor* (Lat., *armor*), the name for all such habiliments as were used to protect the person of the wearer from the weapons of an enemy. From the earliest dawn of the historic era, we find mention of this defensive covering. Those ancient nations who were the most civilized employed leather, brass, iron, and even gold, in the fabrication of their defensive clothing. The greatest skill and care were lavished upon the decoration of the armour of the Greek military leaders. Nor was the war-dress less complete, in a defensive sense, than its elaborate ornamentation. In proof of this, we have only to give a minute description of the attire of a heavy-armed Greek soldier. Having his tunic already upon his body, he put on, 1, his greaves, or leg-guards; 2, his cuirass, or thorax, which, being composed of a back and breast plate, formed a defence for his chest, back, and abdomen; 3, his

sword, which was suspended upon his left side by a belt passing over his right shoulder; 4, his massive round shield; 5, his helmet; 6, he took up his spear. (For further information as to these articles, see their respective headings.) With the Egyptians, metal armour appears to have been worn only by the monarchs and nobility, the soldiery being defended by helmets of quilted linen, their shields being usually of wood. Among the Romans, the lorica, or cuirass, was originally of leather; but subsequently it was made of brass, like the rest of the Roman body-armour. The attire of a Roman soldier was substantially the same as that of the Greek warrior, already described. With respect to the armour worn in England, it is supposed that the early Britons had scarcely any other defensive armour than a shield. The Anglo-Saxons, however, possessed a more complete equipment. When the Danes first arrived in Britain, their defensive covering appears to have consisted of a broad leather collar, encircling their neck and chest, and shin-pieces; but during the reign of Canute, they borrowed from their kinsfolk, the Norsemen, a tunic with long sleeves, and a hood and chausses, or pantaloons, all of which were strengthened by a network of perforated steel lozenges, called macles or mascles. On their head they also wore a conical skull-cap, probably of leather, from which pieces could be let down, and thereby afforded a perfect protection for the whole of the face. This helmet was surmounted by an apex or circular knob, from which, as a centre, a painted circle of star-rays radiated. For offensive arms, they had battle-axes, swords, and spears. In the Norman period, an entire suit of armour, frequently termed *harness*, consisted of a casque or helmet, a gorget, cuirass, gauntlets, tasses, brassets, cuisses, and leg-coverings (see these words). This was the usual wear of feudal lords, knights, and cavaliers, whether in battle or in the tournament, and was called armour *cap-à-pie*. It underwent various changes during the reigns of Rufus, John, Henry III., and Edward III. Until the time of the last-mentioned monarch, armour was generally of chain-mail; but, in the 14th century, plate-armour came into use, and, becoming more and more elaborate and richly-ornamented, reached its climax of splendour during the reign of Richard III., when it was often beautifully damascened and inlaid with gold. Fluted and engraved armour was much in fashion in the days of Henry VII. and VIII.; but, in the reign of James I., the general use of armour fell into disrepute, and the steel coverings for the lower limbs were almost wholly laid aside. Charles I. endeavoured to revive the fashion of wearing a complete suit of armour; and we may learn how much attached he was to iron habiliments, from his being so often represented in them in paintings. The only armour worn in the days of the Protectorate was the helmet and cuirass, both of which are still retained in several *élite* corps of the European armies, such, for instance, as the English life and horse-guards, the cent-gardes of France, the imperial guard of the Czar of Russia, &c. There are extensive collections of armour of great value at Paris, Vienna, Turin, Madrid, and other cities on the continent; and in the Tower of London is a fine collection of about 6,000 examples.

ARMS, *arms* (Lat., *arma*), or weapons of offence, may be divided into two principal classes—those that act by explosion, and those that do not.

To speak first of the earliest of these arms, those used without the assistance of gunpowder, the simplest and most natural perhaps of all arms is the club; but the earliest offensive weapons, properly so called, were the bow and arrow. The sling was, in all probability, its successor in military operations. After the bow and arrow, the pike, lance, spear, dart, javelin dagger, mace, axe, chariot-scythe, dirk, bayonet, sword, &c., came to be employed. (See various headings.) The ballista, catapulta, and battering-ram, may be said to be the precursors of the modern artillery. The invention of gunpowder led to the introduction of an immense variety of weapons of offence, acting by the agency of this destructive compound. As most of these arms will be severally described at length under their own headings, it will not be necessary to furnish more than a brief enumeration of them in the present article. The hand-cannon, probably the earliest in date, was a simple tube fixed on a straight stock of wood, and furnished with a touch-hole and trunnions, like the large cannon of the present time. The hand-gun was cast in brass, and was used in England as far back as the year 1446, and rendered important service at the siege of Constantinople in 1453. The arquebus, or harquebus, is mentioned as early as 1476. The harquebut, hakebut, or hagbut, differed from the arquebus in having a bent stock, an improvement which enabled it to be brought nearer to the level of the eye. The demi-hague was a long pistol with a butt curved almost into a semi-circle. The musquet was invented by the Spaniards, and was first used at the battle of Pavia. The Italians invented the rose-lock, or wheel-lock, and introduced it into warfare about the time of Henry VIII., as an improvement upon the matchlock. The snap-haunce superseded the wheel-lock, and was commonly used in the reign of Elizabeth, but was in turn supplanted by the caliver, carbine, esclopetta, and fusil. This latter—from which the term fusiliers, applied to certain of our English infantry regiments, was derived—was invented by the French in 1630. During the reign of Charles II. the blunderbuss, so called from the Dutch *donderbus* (thundering gun), seems to have been imported from Holland. Somewhat resembling this latter weapon was the dragon, so called from having the muzzle ornamented with a dragon's head. The conjecture is, that the modern term dragoons was derived from this weapon. The musket, a better form of firelock, continued to be used until quite a recent date in military operations; but, at the present time, the rifle, the most complete portable weapon of offence acting by explosion, has become general throughout the armies of England, France, &c. The rifle is not, however, a newly-invented weapon, although it has lately been so wonderfully improved. (See various headings.) For an account of non-portable explosive weapons, see ARTILLERY.

ARMS, in Heraldry. (See ARMORIAL BEARINGS.)

ARMS, BELLS OF, conical-shaped tents, pitched in the field, to contain the whole of the arms of a company of infantry. They are also called "bell-tents," and are usually painted with the colours of the regiment and with the royal arms.

ARMS, STAND OF, denotes a complete set of arms for a single soldier, whether of infantry or cavalry; as, rifle, bayonet, cartridge-box, belts, &c.

ARPEGGIO, *ar-pedj'-e-o* (Ital., from *arpa*, harp), in Music, signifies a chord, the notes of which are given in rapid succession, not contemporaneously. Several varieties may be formed from any chord.

ARQUEBUS, OR HARQUEBUS, *ar'-kuc-bus* (Ital., *archibuso*, iron bow), was a kind of hand-gun used before the invention of the musket. The earliest hand-guns were fired by applying a match with the hand to the touch-hole. Afterwards a contrivance, suggested by the trigger of the cross-bow, was introduced, by means of which the burning match could be instantaneously applied. This was called an arquebus, and is first mentioned by Philip de Comines, in his account of the battle of Morat, in 1476. On the formation of the Yeomen of the Guard, in 1485, many of them were armed with arquebuses.

ARROW. (See ARCHERY.)

ARROWHEADED CHARACTERS.

(See CUNEIFORM INSCRIPTIONS.)

ART, *art* (Lat., *ars*), as distinguished from Science, consists of the truths disclosed by that species of knowledge disposed in the most convenient order for practice, instead of the best order for thought. Science investigates and explains the nature of existing principles; art applies them to production. The manufacturing and mechanical arts adapt the laws discovered by physical science to the necessities and tastes of man. The fine arts, which embody the conception of beauty of which the human mind is susceptible, are a similar adaptation of abstractions to practice, but the abstractions are less clearly defined than the natural laws with which physical science deals. (See ARTS, MANUFACTURING, AND FINE ARTS.)

ART EXHIBITIONS, ART UNIONS.

(See FINE ARTS.)

ARTHURIAN LEGENDS AND ROMANCES. Poems and romances based on the life and exploits of Arthur, the semi-mythical king of Britain, Merlin the wizard, and the knights of his court, especially Launcelot of the Lake, to whom is given an importance second only to that awarded to the king. It cannot be doubted that Arthur was a real personage, the most prominent of the princes of the British race who fought against the Scandinavian and Teutonic invaders, and maintained a supremacy in the western part of the island, and northward as far as the Firth of Forth. In course of time he came to be considered as the typical hero of the great struggle, invested with almost supernatural attributes, and it was believed he would again appear, at some indefinite time, as the leader and liberator of the British people. The legends which have clustered round his memory had their origin in the dim twilight of British history, in the period which intervened between the departure of the Romans and the establishment of the Saxon kingdom. The Celtic people of Brittany had a national affinity with the tribes of the south and west of Britain, and adopted the legends respecting Arthur, transferring some of them to their own country, and shaping them into ballads, of which Arthur and the enchanter Merlin (the bard Myrddhin of the British) were the heroes. About 1147, the chronicler Geoffrey of Monmouth wrote his *Historia Britonum*, otherwise known as the

"History of British Kings," in which he united the Breton with the older British traditions. He afterwards wrote a Latin poem, *Vita Merlini*, embodying the legends relating to Merlin. Walter Mapes, or Map, the chaplain to Henry II., collected the Arthurian legends into a regular form, and in the words of a modern writer, "put a soul into what had been a shapeless mass of incidents of combat and armour." He gave a religious tone to the narratives, by adding, "The Quest of the Graal," or the adventures of the knights in search of the sacred cup from which the Saviour drank at the Last Supper. He also introduced the story of "Launcelot of the Lake," and *Mort Artis*, or "Death of Arthur," and to him is due the invention of the pure Knight, Sir Galahad. Robert de Borron assisted Mapes in translating the Breton stories; and, about thirty years afterwards, Layamon, a West of England priest, wrote the legends in Anglo-Saxon, adding some incidents—for example, the taking of King Arthur after death to Avalon; and Robert Wace, the Anglo-Norman poet, author of *Le Roman du Rou*, made a poetical version of Geoffrey's Chronicle, adding some new legends. Afterwards, Lucas de Gast and Helie de Borron (probably a relative of the Robert de Borron already mentioned) produced the story of "Tristram," in two parts, which had not appeared in previous collections. About the middle of the fifteenth century, John de Waurin, Lord of Forestel, a French gentleman who had fought at Agincourt, prepared *Recueil des Chroniques et Anciennes Istories de la Grand Bretagne, a present nomme Engleterre*, founded partly on the book of Geoffrey of Monmouth, but with many additions. In this collection the Arthurian legends are very prominent. In the form they have assumed, the legends were the growth of several centuries in Brittany and England. The rude, warlike tales handed down by oral tradition from the days of the Welsh bards had been amplified into popular ballads, and when they reached France were transformed into knightly romances; the uncourtly Celtic warriors becoming Paladins, of the pattern of those who kept state with Charlemagne, or fought with Roland at Roncevalles. Arthur's knights were models of courtesy and of brilliant valour in the tournament (an institution, it may be safely said, quite unknown to the Celts of the historic Arthur), and Queen Guinevere and the ladies of her train were lovely dames such as those who adorned the Court of France. The loves of the Queen and Launcelot of the Lake have the air of French romance; and the bard Myrddheinn, who in the old Welsh stories went mad on beholding the unhappy contest between the Northern and Southern Celts at the battle of Arderidd, near Bath, in the 6th century, is transformed by the French romancist into Merlin, who, sage and magician as he was, allowed himself to be "lost to life and use and name and fame," by the arts of the worthless Vivien. Soon after the invention of printing, a collection of the Arthurian romances was produced in France; and about 1470, Sir Thomas Malory (or Maleor) compiled a book from these legends, and it was printed by Caxton in 1485, with the title *La Mort Darthur*. Only one complete copy of this edition is known to exist, one other being in an imperfect condition. Caxton's successor, Wynkyn de Worde, produced editions in 1498 and 1529, but collectors know of only one copy of each. In the present

century, several editions have appeared of Sir Thomas Malory's book, and that collection and the Welsh legends, existing in an ancient manuscript, and gathered in the "Mabinogian" by Lady Charlotte Guest, contain nearly all that is likely to be obtainable of the traditions respecting Arthur, his beautiful, faithless, and repentant queen, and his indomitable knights. The stories, especially those relating to the illicit love of the queen and Launcelot, had a great attraction for the Italian poets and romancers, and Dante represents Francesca di Rimini and her lover reading it together until—"that day we read no more." The legend of Merlin and Vivien, very slightly sketched in Malory's book, is founded on a Breton poem, and has been rendered into modern French by Hersart de Villemarqué. How Tennyson has availed himself of the old legends in his exquisite and tenderly pathetic "Idylls of the King" we all know. Arthur appears as the ideal of noble manhood, "The spotless King," and Guinevere, Launcelot, Elaine, and Enid have taken a place in English poetic literature, second only to that occupied by the Shaksperian galaxy.

ARTICLE, *ar'-ti-k'l*, is a part of speech prefixed to substantives in order to render their meaning more or less definite. It is derived from the Latin *articulus*, or Greek *arthron*, signifying a joint, a term applied by the Greek grammarians to the definite particle, as well as the relative pronoun, as connecting together the parts of a sentence; as in "I gave you *that* (or *the*) book that you asked for;" the former they call the prepositive article, the latter the postpositive. In English, there are two articles, the definite *the*, and the indefinite *a* or *an*. The former is a weakened form of *that*; the latter of "ane" (one). There is no article in Latin.

ARTICULATE SOUNDS. (See LETTERS.)

ARTICULATION, *ar-tik-u-lai'-shon*, is a term applied to a consonant, or that portion of a word which can be pronounced by a single movement of the organs of speech. Hence a good articulation consists in giving every letter and syllable of a word its due pronunciation. An indistinct articulation usually arises from too great precipitancy of speech, or from an improper use of the vocal organs. (See ELOCUTION.)

ARTS, DEGREES IN. (See DEGREES and UNIVERSITIES.)

ARTS, FINE. (See FINE ARTS.)

ART-UNIONS. (See FINE ARTS.)

ARUNDELIAN, OR OXFORD MARBLES, *ar-un-de'-li-an*, a collection of specimens of Greek and Roman sculpture, made between the years 1607 and 1614, by Thomas Howard, earl of Arundel and Norfolk. His grandson Henry Howard, who subsequently became duke of Norfolk, presented part of this valuable gathering of the relics of antiquity to the university of Oxford, in 1667, at the suggestion of the celebrated John Evelyn, who, with Mr. (afterwards Sir William) Petty, was engaged by the earl to render assistance in the laborious undertaking. The collection in its entire state numbered 37 statues, 128 busts, and 250 pieces of marble bearing inscriptions; besides altars, sarcophagi, and fragments of various kinds, and a cabinet of gems, medals, and intaglios, acquired at Venice for the sum of £10,000. After the death of

Lord Arundel, however, in the troublous time of the Parliamentary war, it was unfortunately dispersed and many of its choicest treasures were for ever lost sight of, and the gems descended to the Marlborough family, only a small part of the original collection being handed over to the university of Oxford. One of the choicest treasures, the Parian Chronicle, or *Marmon Chronicle*, was acquired by purchase at Smyrna, by Sir William Petty. It contained in its perfect state a chronological table of the leading events in Grecian history, from 1582 B.C. to 264 B.C. A part is lost, and the remainder is much injured and defaced in many places. It is supposed to have been cut in the isle of Paros, about 263 B.C., the period of time at which the record ends.

ARYAN LANGUAGES, *ac'-re-an*. Scientific philologists are agreed that seven recognized groups of languages are clearly branches of the old Aryan stock, many of the words being very identical, and the general grammatical peculiarities having great affinity. These groups of languages are the Sanskrit, the Teutonic, the Slavo-Lithuanic, the Celtic, the Italian (including Latin), the Greek, and the Iranian or Persian. The oldest existing records in a language derived from an Aryan stock are the sacred books of the Hindoos, the Veds and the Laws of Menu, written in Sanskrit. It has been observed by Mr. Max Müller that most of the terms connected with chase and warfare differ in each of the Aryan dialects, while words connected with more peaceful occupations are common to all the languages of Aryan origin, indicating that the Aryan nations had led a long life of peace before they separated. We are led to look to the Aryan people for the origin of the legends of gods, heroes, and monsters, all having a family likeness, which formed the mythology of the nations sprung from the parent stock.

ASCLEPIAD, *as-kle'-pi-ad*, in Ancient Poetry, is the name of a species of verse, so called after Asclepiades of Tragilos, in Thrace, a scholar of Isocrates. He wrote some tragedies, fragments of which still remain. The verse consists of four feet, of which the first is a spondee, the second a choriambus, and the third and fourth dactyls, as in the following line from Horace:—

Mecē | nās ātāvis | ādītē | rēgībūs.

ASIATIC SOCIETIES, *ai-shi-at'-ik*, are certain societies that have been formed for investigating the languages, literature, history, antiquities, &c., of Asia. Some of these exist in Asia, others in Europe. The oldest society of this kind was founded in Batavia in 1781. It was speedily followed by the Asiatic Society of Bengal founded at Calcutta by Sir William Jones, for the purpose "of inquiring into the history, civil and natural, the antiquities, arts, sciences and literature of Asia." The first volume of its proceedings was published in 1783, under the title of the *Asiatic Researches*, and the series was continued up to vol. xx., published in 1836. In 1832 the society issued vol. i. of the *Journal of the Asiatic Society of Bengal*, a work which is continued down to the present time. In 1804 the Literary Society of Bombay, was instituted, under the presidency of Sir James Mackintosh, and was followed by the Literary Society of Madras in 1845. In 1823 the Royal Asiatic Society of Great Britain and Ireland was founded, and in 1824 received a

royal charter; since 1834 it has regularly issued a Journal of Transactions. The Asiatic Society of Ceylon was instituted in 1845. Most of these societies, besides their journals, publish, from time to time, translations or editions of Oriental works.

ASPIRATE, *as'-pi-ra'it* (Lat., *asper*, breathing), the breath sound given to certain vowels, and generally indicated in English by the letter "h." Some consonants are also aspirated, as "f," and the combination "th." In speaking the English language, the proper use of the aspirate is a mark of refinement, but to use it excessively is a mark of vulgarity—the line is easily overstepped. If the vowel is formed at the back of the mouth, the amount of breathing is quite sufficient.

ASSONANCE, *as'-so-nance* (Lat., *ad*, to, and *sono*, I sound), is a term used in Poetry and Rhetoric to denote that the words of a phrase or verse have the same sound or termination, yet without making proper rhyme.

Assonant Rhymes, *as'-so-nant* (Lat., *ad*, to, *sono*, I sound), is a term applied to a kind of verse common among the Spaniards and Portuguese, where the vowels only are required to rhyme.

ASSYRIAN ARCHITECTURE, *as-sir'-i-an*. By the discoveries of the remains of Assyrian edifices and of sculptured representations, made during the last thirty-five years, we are enabled to form some idea of the general features that characterized the buildings. It appears that when a site for any structure of great size and importance had been determined on, the first thing that was done was to raise an enormous mound, several acres in superficial extent, and from twenty to forty feet in height: they did this to obtain an imposing elevation for their buildings. The country through which the Tigris and the Euphrates take their course is perfectly flat, and their palaces, which seem to have been low in proportion to their length and the extent of ground they covered, would have appeared dwarfed in height, and comparatively insignificant, if they had been raised on the level of the soil itself. These artificial platforms were not merely heaps of earth, but were systematically constructed of sun-dried bricks, with an outer facing of hard calcareous stone, brought from the distant mountains, and cut in regular blocks. It is supposed that great flights of steps led to the buildings. The palaces consist of a series of chambers and halls, the latter mostly oblong in form. The large hall in Sennacherib's palace at Kouyunjik is 200 feet long by 45 feet wide. The great thickness of the walls of the buildings is remarkable. Those of the Kouyunjik palace are 15 feet, and those of the great hall at Nimroud, 26 feet. The buildings raised on these mounds were quadrangular in form, with portals in each facade, flanked with sculptured winged bulls of great size. The walls were of brick faced with panels or slabs of gypsum, adorned with figures in bas-relief larger than life. The pavement of the apartments consisted of sun-dried or kiln-baked bricks, or of alabaster slabs of great size laid in bitumen, and frequently sculptured, but the principal passages were floored with broad flags of stone. The walls of Assyrian cities were, like those of the palaces, of enormous thickness, being, in some cases, 45 feet in width; they were lofty, and were surmounted by square towers at intervals, with battlements for the protection of

the archers who were engaged in defending any beleaguered town. The entrances are great arched gateways. There are no windows in any of the palaces that have yet been discovered, and it is conjectured that they must have been lighted by apertures in the roof, which must have been flat, and formed of horizontal beams supported on rows of columns placed at intervals in the rooms below; a flooring, or rather ceiling, of wood was afterwards added, and covered with layers of sun-dried bricks. Rich colouring was introduced into the decorations, and the brick walls above the carved slabs were faced with enamelled tiles of the richest hues. The alabaster panels were set in a brilliant bordering of figures and arabesque patterns common to Eastern architecture. Some of the sculptured slabs represent private houses as being several stories in height.

Assyrian Sculpture.—Although the architecture of the Assyrians was simple enough, yet this people reached a high pitch in the excessive richness of their sculpture. They seldom made statues or representations of the human form or animals in a complete and perfect state, but confined themselves to sculpture in bas-relief, embossing figures on the surface of the slabs of marmoriform gypsum, with which the sides of their rooms and passages were coated. These bas-reliefs were intended to be pictorial representations of the manners and customs of the people, and, more particularly, of the history of the nation, giving an account of the remarkable events in the reign of any monarch, very much in the style of the Bayeux tapestry, allowance being made for the difference of material. Some of these gypsum panels, which are about nine feet high and from three to nine feet broad, were carefully joined to present a continuous surface round the walls of any room or passage; and royal ceremonies, military expeditions, and hunting exploits are represented. A remarkable series of bas-reliefs, small in size, and in bronze, were found at Balawat, nailed on huge gates, and representing the warlike progress of Assurnazi-pal, and his successor Shalmaneser II., in the 9th century B.C. A recent writer says, "The clearness with which the history is related by these sculptures, the abundance and variety of illustration, render them as valuable to the student of Assyrian history as would be the discovery of a long-lost history by some Chaldean Thucydides or Macaulay of the old world, describing the career of conquering monarchs whose very names had been almost unknown previously. There is remarkable freedom in the attitude of the figures and altogether more artistic power than in the larger specimens of Assyrian art." The jambs of the portals of their palaces and chambers were usually carved into the figures of winged bulls and lions with human heads; the head, fore-legs and fore part of the body as far as the shoulders being entirely finished, and the remainder in high relief on the side of the block which formed the jamb. One great peculiarity about these figures is, that they are represented with five legs, that they may appear complete, whether viewed in front or at the side. All the specimens of Assyrian sculpture that have been found show that they were faithful observers of nature, although they were not sufficiently good draughtsmen to accomplish correct reproductions of all they saw around them. Some of the winged lions and bulls are twelve feet high, and the figures of monarchs and deities are frequently of proportionate dimensions. The Assyrian sculptures are far superior to those of Egypt in respect of grace, spirit, and delicacy of execution; and there is no doubt that Greek art was to some degree indebted to the Assyrian. In the bas-reliefs there is no attempt at perspective.

ASTERISK, *as'-ter-isk* (Gr., *aster*, a star), is a mark in the form of a small star (*), placed at the end of a word or sentence to refer the reader to the margin, or elsewhere, for an explanation, quotation, or the like.

ASTOR LIBRARY, an institution founded in New York, under the provisions of the will of John Jacob Astor, a wealthy merchant. The

building was opened January 9, 1854, with a collection of 70,000 volumes, since increased to 150,000. A second building was erected in 1859. In 1866, Mr. William B. Astor, eldest son of the founder, made a donation of 50,000 dollars for the purpose of extending the library and defraying expenses.

ASTRAGAL, *as'-tra-gal* (Gr., *astragalos*, a heel-bone), in Architecture, a moulding, the section of which is a complete semicircle, projecting from a perpendicular diameter, so called from its resemblance to the projection of the heel of the human foot. The term is generally applied to small mouldings, the name *torus* being given to large mouldings of the same form.

ATCHEVEMENT, in Heraldry. (*See* HATCHMENT.)

A TEMPO, OR **A TEMP**, *a-tem'-po*, in Music, a term signifying "in time." When there has been some short relaxation in the time, a *temp* or *a tempo* denotes that the performer must return to the original degree of movement. *A tempo giusto* signifies "in equal and just time;" an expression generally applied to the manner of performing a steady sound movement—a movement less directed to the feelings than to the judgment, more scientific than impassioned.

ATHENÆUM, *ath-e-ne'-um* (Gr., *athenaion*), a public place frequented by professors of the liberal arts, and where rhetoricians declaimed, and the poets read aloud their works. At Athens, these assemblies first took place in the temple of Minerva (in Gr., *Athene*)—whence the name. The Athenæum at Rome was founded upon the Capitoline hill, by the emperor Hadrian. It was a school or college, furnished with a complete staff of professors for the several branches of study. Like its Athenian prototype, this establishment was frequented by the Roman orators, poets, and other learned men, who there declaimed their compositions, the emperors themselves frequently honouring the assembly by their presence. At a subsequent period, other celebrated Athenæums were erected at Lyons and Marseilles. These institutions, generally, appear to have retained their high reputation until the 5th century. At the present time, the term has been revived as a name for literary institutions, clubs, and libraries. The Liverpool Athenæum was opened in 1799; and similar institutions have since been established at Manchester and other large towns.

Athenæum Club.—This famous club for the association of persons of literary and scientific attainments was established in 1823. Sir Walter Scott, Sir Humphrey Davey, Sir Thomas Lawrence, the Earls of Liverpool and Aberdeen, the Marquis of Lansdowne, Sir Francis Chauncy, Wilson Croker, Thomas Moore, and many other literary and political celebrities were among the earlier members. The club-house, erected at a cost of more than £350,000, is a superb edifice in Pall Mall. There are about 1,200 members, chosen by ballot as vacancies occur. The library is extensive and valuable.

Athenæum, The, a well-known literary and critical publication, was established in London by Mr. Silk Buckingham, the traveller and journalist, in 1828. The title was given to the German critical journal founded by the brothers Schlegel, and was borne also by a French publication.

ATHLETES, *ath-leets'* (Gr., *athletai*), were those persons who, among the Greeks and Romans, contended for prizes (*athla*) at the public games, in boxing, wrestling, running, leaping, and throwing the disc. Unlike the *agonistes*, who only

pursued gymnastic exercises as a means of improving their health and bodily vigour, the athlete devoted their whole lives to preparing for the contests at the public games. For these they were trained with the utmost care. They were constantly undergoing a course of the most severe exercise, in a gymnasium set apart for the purpose, under the superintendence of the gymnasiarch. An officer named the *aleiptes* directed their diet, which, although regular in its nature, was enormous in quantity. They usually slept for a very long time. At first, the athletes, when struggling for the prize, wore a girdle round their lions; but afterwards they contended in a nude state. Before commencing wrestling encounters, their bodies were covered with sand, that they might grasp each other the more firmly. In other games they were anointed with oil by the *aleiptes*. An athlete who gained the prize at either of the four great public games—viz., the Olympian, Isthmian, Nemean, or Pythian, was received by the state to which he belonged with the greatest honours. A breach was made in the city walls specially to allow of his entrance in a chariot drawn by four white horses. On entering within the city, he was conducted to the temple of the presiding deity, where hymns were chanted in his praise. A successful athlete was absolved from the payment of taxes; often his statue was set up in a public spot; in battle he fought in a distinguished place; and he was allowed a public funeral. The most eminent men did not think it beneath them to compete for prizes. Plato wrestled in the Isthmian and Pythian games, and Pythagoras gained a prize at Elis, and gave instructions for athletic training. Athletes were, it is stated, introduced from Greece into Rome by M. Fulvius, at the close of the Ætolian war, 186 B.C. They speedily became highly popular; and, under the emperors, their contests were admired by the nation to a degree bordering upon passion. Under Nero an enormous number of athletes lived in Rome, where, however, they were hirelings and lived separately, forming, by themselves, a distinct corporation. The athlete were an entirely different class from the gladiators. (See GLADIATORS.) Among the Greeks there were no gladiators. There has been a great revival of athleticism among the more cultured classes in England within the last half-century, and many clubs and associations have been formed. Rowing, running, walking, and leaping are the chief pursuits indulged in by amateurs; and many valuable prizes are competed for.

ATLANTES, OR ATLANTIDES, *at-lan'-tees* (Gr., *Atlas*), a name given by the Greeks to male figures used instead of columns or pilasters to support entablatures. The name was derived from the idea of Atlas bearing the heavens on his shoulders. When female figures are made use of for the like purpose, they are termed Caryatides. (See CARYATIDES.)

In Astronomy, the name Atlantides is applied to the Pleiades, seven stars representing the daughters of Atlas, supposed to have been turned into a constellation after death.

ATLANTIS, OR ATALANTIS, *at-lan'-tis*, according to a tradition of great antiquity, referred to by old Greek writers, a very large island in the ocean now known as the Atlantic. Plato relates that his grandfather was told by Solon, that, nine thousand years before his time the Athenians had conquered a mighty nation whose

home was on this island, and who had made themselves a terror to all people dwelling on the shores of the Mediterranean, their armies having passed the pillars of Hercules (the strait of Gibraltar). Then, said Solon, "did Athens bravely, and won renown over the whole earth." Shortly afterwards the island was swallowed up by a great earthquake. Solon admitted that he derived the legend from Egyptian priests. Plato gives a delightful description of this island, and is even ready with an imaginary history. It is, of course, quite possible that a vast tract of land may have been submerged, or even that the Canary Islands may be portions of it, for similar phenomena are known to have occurred, and physical geographers entertain little doubt that the Indian Ocean covers a submerged continental mass, extending from Madagascar to Ceylon, to which they give the name Lemuria; and it has been suggested that some Phœnician or Carthaginian merchant ships may have even drifted to the coast of America, and that Plato's island of Atlantis, as well as the great unnamed island spoken of by Pliny and others, may have been the New World. Probably Plato made the vague tradition a medium for illustrating his views on political and ethical matters, which it might not be convenient to expound in a more precise manner; that, in fact, his description of Atlantis is of the nature of "Gulliver's Travels," only far more refined and intellectually suggestive. One of the most remarkable and interesting of the works of our own Francis Bacon is a philosophical romance—"The New Atlantis," suggested by Plato's fictitious history. It is a description of an ideal state in which the principles of the new philosophy are carried out by political machinery and under state guidance, and where many of the results contemplated by Bacon, but which he knew to be impracticable of realization in his own time are in imagination attained. It is a brilliant example of a class of works of which More's "Utopia" is a notable instance, and which have inspired many imitators since.

ATLAS, *at'-las*, a name given to a number of maps collected in the form of a volume, originating with a collection made in the 16th century, by Mercator, the eminent geographer, which had a figure of Atlas bearing the world on his shoulders engraved on the title page.

In Anatomy, is the name of the first cervical vertebra. It differs from the other vertebra in having its body small and thin, and its foramen very large, being in form somewhat like a ring. It is connected above with the condyles of the occipital bone, and receives the tooth-like process of the second cervical vertebra from below, the former admitting of moving the head up and down, the latter from side to side.

ATRIUM, *av'-tri-um* (Gr., *aitrios*, exposed to the air), the entrance-hall and most splendid apartment of a Roman house. It consisted of a large covered court, with an opening in the centre of the roof, termed the *compluvium*, through which the rain-water descended into a cistern let into the floor beneath. It was the most highly-decorated apartment in the whole house. Upon the walls were drawings representing incidents from the ancient mythology, surrounded by borders formed of elegant arabesques. Even the floors were frequently enriched with pictures executed in mosaic. The owner of the house here received his morning visitors; here the mistress superintended the labours of her

female slaves, whilst engaged in weaving or other occupations. The temples, also, had atria, where the senators and others sometimes held meetings.

In Ecclesiastical Antiquities.—An open place, or court, before a church, surrounded with a portico or cloister. There was a fountain in the centre, in which worshippers washed their hands before entering the church. Penitents, and others not allowed to enter the church, stood in the atrium, to solicit the prayers of the faithful. The open space was also used as a burying-ground.

ATTACK, *at-tak'*, in military language, denotes an advance upon an enemy, with a view of driving him from his position. It may be made either upon an adverse army in the field, or upon a fortress.

ATTENTION, a cautionary word used in the British military service as preparatory to any particular exercise or manœuvre. Upon receiving this command, the infantry soldier assumes the following position:—Shoulders square to the front; heels kept together; toes turned outward; feet forming an angle of sixty degrees; arms depending straight from the shoulders; palms of the hands falling flat upon the thighs; body straight, but with a trifling inclination forward, in order that its weight may principally fall upon the fore part of the foot; head kept erect, but without being thrown back; eyes looking straight to the front; the whole position being perfectly easy and unconstrained, without any rigidity or awkwardness.

ATTIC, *at'-tik* (Gr., *attikos*, belonging to Attica), a term in Architecture, applied to a low storey above an entablature or cornice which limits the height of the main part of an elevation. In Building, the term is applied to rooms made in the roof of a house. Although the derivation of this word is established there is nothing exactly answering to the attic in Greek architecture.

ATTIC DIALECT, **THE**, is that dialect of the Greek language which was spoken in Attica. It was the most refined and polished of all the dialects of ancient Greece; and in it wrote Solon the lawgiver, Thucydides and Xenophon the historians, Aristophanes the comic poet, Plato and Aristotle the philosophers, and Demosthenes the orator. When, after the Macedonian conquest, Greek became the language of literature and diplomacy in most parts of the civilized world, the Attic came to be that dialect of the Greek which was generally adopted.

ATTRIBUTES, *at'-tri-butes*, in the Fine Arts, certain symbols which accompany, distinguish, and characterize certain figures and allegories. Thus the eagle and thunderbolt are the attributes of Jupiter; the caduceus is the attribute of Mercury; the trident of Neptune.

AUDITORY (Lat., *auditorium*, an audience), an assemblage of persons gathered together for the purpose of hearing a preacher, lecturer, &c. In the ancient churches, the term auditory, or auditorium, was applied to that part of the building where the people stood to be instructed, and hear the gospel: it is now called the nave. The word is sometimes applied to the part of a theatre occupied by the audience.

AUGUST, *av'-gust*, the name given to the eighth month of our year. It was named by the Roman emperor Augustus, after himself, as he

regarded it as a fortunate month for him, being that in which he had gained several important victories. Before this time it was called *Sexilis*, or the sixth month, the year beginning with March. The name of July had, in like manner, been *Quintilis*, before it was changed by Julius Cæsar; and as it contained thirty-one days, the senate, in order that Augustus might not be behind Cæsar, decreed that August also should have thirty-one days, and that, for that purpose, a day should be taken away from February.

AUGUSTAN AGE, *av-gus'-tan*, the reign of the Emperor Augustus (31 B.C. to 14 A.D.), was distinguished by splendid achievements in arts and arms, and especially for literary productions of the highest excellence. It is generally regarded as the most memorable period of Roman history. The Emperor, nephew of Julius Cæsar, whose proper name was Caius Julius Cæsar Octavianus, had the title Augustus bestowed on him, hitherto applied only to the most sacred and venerable things, and expressing the most profound veneration. Virgil, Horace, and Ovid wrote during this period, and Livy achieved undying fame as a historian, the architecture of Rome was so greatly improved, and so many splendid buildings erected that it is said, "Augustus found the city built of bricks, and left it of marble." The epithet "Augustan Age" has been applied to the reign of Louis XIV. in France, and to that of Anne in England, both distinguished for brilliant displays of literary ability.

Augustan Era began Feb. 14, 27 B.C. (See ERA.)

Augustan History, the name given to a collection of the biographies of the Roman emperors from Hadrian to Carinus (117 A.D. to 283 A.D.). These annals were completed in the reign of Diocletian and Constantine, about the close of the 3rd century, and are supposed to have been the work of four, or at most six writers. They have little pretension to literary merit, but are valuable for the amount of information contained. The first edition of the History was printed at Milan in 1475. In 1603 the great scholar Casaubon produced an edition with elaborate notes; and in 1620 Salmassius published a revised text, with critical notes. Several German editions have been published, but there is no English translation.

AUREOLA, *aw-re-o-la* (Lat., *Aureus*, of the colour of gold), the glory with which ancient painters encircled the heads of the Holy Family, saints, martyrs, and confessors, in their pictures. When there is only a luminous disc around the heads of the figures, it is known as a *nimbus*.

AURIFLAMME. (See ORIFLAMME.)

AUTHENTIC, *av-then'-tik* (Gr., *authentikos*, authentic, warranted), is a term applied to something of established authority, something which is what it appears or professes to be. It is usually applied to a writing or document written by the person, at the time, or under the circumstances, that it asserts or implies. Sometimes a distinction is made, especially by Biblical critics, between authentic and genuine; the former referring to the statement made by an author, the latter to the authorship itself; but this distinction is not very generally observed. To determine the authenticity of a document is often of the utmost importance, and it belongs to the highest kind of criticism. The proof is of two kinds—internal, from the form and contents of the document itself, and external, from the evidence of others.

Authentic, a translation of the *Novellæ* of Justinian, so called by the early writers from its being a literal translation of the original. The term was afterwards applied to extracts of decisions from the *Novellæ*. The German emperors Fredericks II. and III., issued "authentic" and ordered the civilians of Bologna to intercalate them in the code of Justinian.

AUTHORIZED VERSION. (See BIBLE.)

AUTO, *aw'-to*, is a prefix which enters into the composition of many English words, derived from the Greek pronoun *autos*, self; as, *autocrat*, *autobiography*. In some cases it is applied to the subject, as *autocrat*, *automaton*; in others to the object, as *autobiography*, *autocritic*; and sometimes it denotes a mere reference to the subject, as *autochthon*. These differences of meaning sometimes lead to ambiguity; as in *autograph*, which means either a machine that writes of itself, or a writing done by one's own hand.

AUTOBIOGRAPHY, *aw'-to-bi-og'-ra fe* (Gr. *autos*, self; *bios*, life; and *grapho*, I write), is a biography or life of a person, written by himself; and the term is also applied to a work in which the writer does not so much relate the events of his own life as that of the period in which he lived, or the persons with whom he came in contact.

AUTOGRAPH, *aw'-to-graf* (Gr., *autos*, and *grapho*, I write), is a term applied to what is written by a person's own hand—an original manuscript as opposed to an apograph or copy. Autographs, particularly of celebrated persons, have in recent times become objects of eager pursuit, and form a branch of literary trade. The autograph of Shakspeare, now in the British Museum, cost £100; that in the library of the City of London, £158. In general, the value of an autograph depends upon the eminence of the individual, the scarcity of specimens of his handwriting, and the contents of the writing. Lithography has been very useful in affording the means of making fac-similes of autographs. The first English work in which a series of fac-simile autographs appeared, was Sir John Fenn's "Ori-

ginal Letters from the Archives of the Paston Family," 1787. Among the best works of this class is, "Autographs of Royal, Noble, Learned, and Remarkable Personages, conspicuous in English History, from the Reign of Richard II. to that of Charles II.," by John Gough Nichols, folio, 1829. There are valuable German works of this class, and recently collections of the autographs of modern celebrities have been published in this country, among them the "Autographic Mirror," "Autographic Album," "Handbook of Autographs," "Autographic Souvenir," and "Autographic Miscellany."

AUXILIARY VERBS, *aux-il'-ya-re* (Lat., *auxiliari*, to help or assist), are those helping verbs by which other verbs are principally conjugated. (See **VERB**.)

AVELLANE, *av-el-lain* (Fr., *avelline*; Lat., *avellana*, a filbert-nut). In Heraldry, the name given to a peculiar form of cross composed of four hazel nuts or filberts inclosed in their perispermium or shell.

AVENUE, *av'-e-nu* (Lat., *ad*, to, *venio*, I come), an opening, entrance, or passage by which anything may be introduced. The term is also used in landscape-gardening, in order to distinguish the path leading from some other road, and forming the direct approach to a house. Any broad walk or road, bordered on either side with trees, is also called an avenue. The trees mostly used in England for avenues are the English elm, the lime, the horse-chestnut, the common chestnut, and the beech. A wide straight street is also called an avenue, as in Washington, New York, and other large towns of the United States.

AZURE, *a'-zhure* (Fr., light blue), in Painting, a sky-coloured blue produced by ultramarine. In Heraldry, a term used to denote the blue colour in armorial bearings. In heraldic engraving it is always represented by horizontal lines. The old heralds considered it the symbol of truth and constancy.

B.

B, the second letter in the Hebrew or Phœnician alphabets, and of all European and most other alphabets. It belongs to the order of labials; so called because the lips are the principal organs employed in its pronunciation, and is the medial letter of the order. It is closely allied to the other labial letters, *p* and *v*, with which it readily interchanges. In modern Greece, Spain, and some parts of France, *b* is pronounced like *v*; and hence the sarcastic remark, that in Gascony *vivre* (to live) and *bibere* (to drink) are the same thing. As a numeral, **B** was used by the Greeks and Hebrews to denote 2; but among the Romans it denoted 300, and with a dash over it, 3,000.

B, in Music, is the seventh degree of the diatonic scale of C, and the twelfth degree of the diatonic chromatic scale.

BABYLONIAN ARCHITECTURE.

The characteristics of Babylonian Architecture agree with those of Assyria, except that brick was more generally used, stone being of rare

occurrence in Babylonia, while brick earth was abundant. Under the rule of Nebuchadnezzar, the most extensive and splendid buildings were erected, among them, Saggal, the great temple of Babylon; the temples of Birbur and Ziru, the temple of Neba, in Borsippa, and the principal temples in the great cities of the empire. These edifices were adorned with cedars from Lebanon, in some cases inlaid and ornamented with gold.

BACHELOR, *batch'-e-lor* (Fr., *bachelier*; Lat., *baccalareus*), one of those words of doubtful etymology which have given rise to many absurd conjectures. It seems to have been applied indiscriminately to any one, or any thing, which was passing from one stage of his career to another. Among the various meanings of this word, it denoted—1, those who had not attained to full feudal recognition, but who cultivated certain church lands, called *baccalaria*; 2, monks who were still in their novitiate; 3, probationary knights, who, from want of age, poverty, or other cause, had not yet raised their banner in

the field; 4, an academical degree, and as such it was first introduced in the theological faculty of the University of Paris in the 13th century, being applied to a candidate who, having passed his examination, was entitled to lecture, without being of the rank of an independent doцент or master. Afterwards the word was used in the other faculties as the lowest kind of academical honour; 5, from being thus used to denote a candidate or probationer, it came to be popularly applied to an unmarried man, who was thus held to be a candidate or probationer for matrimony. In many countries laws have been enacted against bachelors or unmarried persons. In Greece, by the laws of Lycurgus, and also by those of Solon, celibacy was regarded as an offence against the state, and in Sparta unmarried men were compelled to march naked round the market-place, in winter, and sing a song admitting the justice of their punishment. In Rome, unmarried persons were placed under certain disabilities. In this country taxes have been imposed upon bachelors and widowers, and married persons with children in some measure relieved; but more apparently with the view of raising money than for any other object. In 1695, an Act was passed, whereby certain rates and duties were levied "upon marriages, births, and burials, and upon bachelors and widowers, for the term of five years, for carrying on the war against France with vigour." Bachelors above the age of 25, and widowers without children, paid from 1s. to £12 10s. yearly, according to their rank. In the tax on servants, first imposed by Mr. Pitt in 1785, a higher rate is charged for the servants of bachelors; and, in the income-tax of 1798 certain deductions were allowed to those who had children.

Bachelor, Degree of. (See DEGREES AND UNIVERSITIES.)

Bachelor, Knight, a term applied to the lowest grade of knighthood, and originally, like knight, a military distinction. It is usually conferred by the sovereign in person, but, in exceptional instances, individuals have been created Knights Bachelor by royal letters patent.

BACKGAMMON, bak-gam'-mon (Sax., *bac*, back, and *gamen*, a game), a game of chance, played by two persons with fifteen black and the same number of white pieces, on tables divided into twenty-four points. The performance consists in the two players bringing their men back from their antagonists' tables into their own; or because the pieces are sometimes taken up and obliged to go back—that is to re-enter at the table they came from.

BACTRIAN COINS, bak'-tri-an, certain pieces of money found in the *topes* or burial-places of Afghanistan. The accidental discovery of some of these coins led to a further search, when several thousands were discovered. Bactria is the ancient name of a province now called Balkh, situated directly north of Afghanistan, and separated from it by the western part of the Hindoo-Koosh Mountains. It was a powerful country in the early ages of the world; but nothing certain is known of its history. The coins are divided by numismatists into two classes—pure Greek, bearing legends in Greek letters only, including the coins of the first five kings given in the above list; and bilingual, or coins with inscriptions in Greek and Prakrit, a dialect of the Sanskrit language. Many of the bilingual coins are square in form; and the introduction of the elephant and elephant's head, and many real emblems

peculiar to India, show the evident decline of the Greek power, and the introduction of foreign influence into state affairs. There are only two gold coins of the Greek kings of Bactria known to be in existence—one of Theodotus I., in the Imperial Cabinet of Paris; the other of Euthydemus. All the other pieces of money that have been found are in silver and copper, or billon, a mixture of these two metals.

BADMINTON, bad'-min-ton, a modern game, somewhat similar to lawn-tennis, but played with shuttlecocks instead of balls. There are four courts, divided by a net, and the game consists in striking the shuttlecock with a racquet over the net, forwards and backwards, until one of the players fails to return it. It can be played by any number of persons from two to eight. The name is taken from Badminton, one of the residences of the Duke of Beaufort.

BAGATELLE, bag'-a-telle, a word originally taken from the French, signifying a trifle. Also now used as the name of a game somewhat resembling billiards, but less difficult.

BAGNIO, ban'-yo (Ital., *bagno*), a bath or bathing-house. It is applied to the prisons in Constantinople where the slaves or convicts who are employed on the public works are confined at night. The term *bagnes* is derived from the same root. By older English writers, *bagnio* is used for a house of bad fame.

BAGPIPE, bag'-pipe, a wind instrument of great antiquity, in use among the Hebrews and Greeks, and a favourite with the people of Europe during the Middle Ages; but, its notes being limited in range, it has gradually fallen into disuse, except in the Highlands of Scotland where it may be heard in as great perfection as anywhere. It is said to have been introduced in Scotland by the Danes and Norwegians, and it may be called the national instrument of the Scotch. Under various forms, it is still played by the natives of Ireland, the South of France, Italy, Poland, &c. The Scottish bagpipe consists of a leathern bag, which is inflated by means of a tube fitted into it; four pipes, three called drones, and one the chanter, which latter has finger-holes, and upon which the melody is played. The three first-mentioned pipes, all of which are tuned into a chord, are fastened together in a fan-shape by cords or ribbons, and are so inserted into a socket as, when inflated, to lie up against the left shoulder and arm: from these pipes the wind passes out at the top. The third portion of the instrument consists of a sort of wooden nave or socket, into which the (fixed) ends of the pipes are inserted, and to which the lower end of the bag is firmly attached by wrapping. There is a great difference between the Scottish and the Irish bagpipe. The former is supplied with wind from the lungs of the player; the latter from a small bellows fastened with straps underneath, and worked by one arm, a tube passing from it in front of the breast to the bag, which is under the other arm. All the pipes in an Irish bagpipe point (slantingly) downwards, one of these having one or more keys upon it, worked by the wrist of the performer, so that the chord may be varied. The tone of the Irish bagpipe is low and sweet. In the Highland regiments of the British service, the bagpipe is played by pipers attired in their national costume. There are, also, certain Highland societies for promoting the skilful play-

ing of the instrument. The Italian bagpipe, not unfamiliar in this country, where it is played on by street mendicants in Italian dress, resembles the Irish in some respects, but is supplied with wind by the mouth. The players are known as *pifferari*.

BAHR, *bar'*, a word derived from the Arabic, signifying a large body of water, or place where such has been. Thus, *Bahr-el-Abiad*, the White River, and *Bahr-bela-Ma*, the sea without water, a long deep valley in the desert, having the appearance of once having been a large river.

BAILEY, *bai'-le* (Lat., *ballium*, probably a corruption of *vallum*, a rampart), originally meant an outer bulwark, but came afterwards to be applied to the area or courtyard within one. It denoted the space inclosed within the walls of a castle. Where there were double walls, the area between the two was called the outer, the area within the inner wall, the inner bailey.

BAINBERGS, *bain'-bergs* (Ger., *bein*, leg, *bergen*, to conceal), the greaves worn over chain-mail armour as an additional protection to the leg. They seem to have been first adopted in the 13th century, as they do not appear in monumental effigies before that time. Their adoption led ultimately to the use of entire plate-armour.

BAITING, *bait'-ing* (Sax., *bate*, contention), the act of smaller or weaker animals attacking and harassing greater and stronger ones; as the baiting of bulls or bears by mastiffs or bulldogs. Bull-baiting was once a very favourite pastime in England; but the barbarity of the sport has led to its being given up in almost all civilized countries. The chief aim of the dog was to seize the bull by the nose, and to avoid being tossed by it. For this purpose, when properly trained, the dog crept on his belly; while the bull endeavoured to defend his nose by keeping it close to the ground, and attempted to toss the dog with its horns.

BAJADERES, or **BAYADERES**, *ba-ya-deers'*, a name given by the Portuguese to the singing and dancing-girls of Hindostan. They are of two kinds—those who are employed as priestesses in the temples, and those who go about the country. The former celebrate with song and dance the festivities of the gods; the latter are employed by the grandes of India to amuse them at their feasts.

BAKERIAN LECTURES, lectures delivered annually by a Fellow of the Royal Society, originating in a bequest of £100 by Henry Baker, F.R.S. The first lecture was given in 1765.

BALALAIKA, *bal-al-i'-ka*, a musical instrument with two or three strings, played with the fingers like a guitar, very popular in Russia for accompaniments, and found in many cottages of the peasantry. Russian ballads have been collected under the title of this national instrument.

BALCONY, *bal'-ko-ne* (Ital., *balco* or *palco*, the box of a theatre), a projection in front of a window, or windows of a house, supported on brackets of wood or stone. The floor of the balcony is generally level with that of the room, and the windows reach to it, and open like folding doors to afford easy access to it. Balconies are generally finished in front with balustrades or cast-iron railings, and sometimes covered with a light ornamental roof. The derivation of the

name shows it to be an Italian invention. The name is also sometimes applied to a row of seats in the best position in a theatre.

BALDACHIN, *bal-da-chin'* (Ital., *baldachino*, from *Baldach*, the Eastern name for Bagdad), a tent-like covering or canopy, of wood, stone, or metal, either supported on columns or suspended from above, and placed over doorways, statues, altars, thrones, &c. They were formerly very common over fire-places, and many elaborate specimens still exist. The largest and most celebrated baldachin is that over the bodies of St. Peter and St. Paul in St. Peter's at Rome; it is made of bronze, and is the work of Bernini. The baldachin is of Eastern origin, and the term was first applied to the square canopy, or umbrella, supported by four poles, and carried over the heads of Oriental magnates, partly as a protection from the heat of the sun, and partly as a symbol of their power. During the early part of the Middle ages, baldachins of brocaded silk, or some other costly material, were often sent as presents by the princes of the East to those of the West. Charlemagne received a rich gift of this kind from Haroun-al-Raschid. At the present day, the baldachin is principally used in Europe, in the processions of the Roman Catholic Church. It is generally held over the head of the priest who carries the Host.

BALE-FIRE. (See BEACON.)

BALISTA, or **BALLISTA**, *ba-lis'-ta* (Gr., *ballein*, to throw), one of the larger kinds of artillery weapons, used for throwing heavy projectiles before the invention of gunpowder. It was a cumbersome instrument, something like a large arbalast (q.v.), and required three or four men to manage it properly. The projectile power was obtained by the reaction of a tightly twisted rope, fastened to either end of stout rods. Early chroniclers tell of balistas which could throw stones weighing 360 lbs. Its particular construction is not exactly understood, and, indeed, it seems to have been made in various ways. One sort was constructed with levers and bars, and another with pulleys, another with a crane, and others with a toothed wheel, and numerous other weapons of a similar kind were also known to the ancients. The catapulta, for throwing darts; the balista, stones; the scorpiion, the onager, and, later on, the mangorel, the robinet, the ribandequin, &c., &c.

BALISTRARIA, *ba-lis-tra'-re-a*, one of the terms applied to the narrow cruciform apertures in the walls and turrets of old castles through which the defenders discharged their missiles by means of balistas, cross-bows, &c. It is also applied to a projecting turret such as is often seen on old castles.

BALL, *baul*, a term applied to a small sphere. In Military language it denotes the missiles fired from pistols, rifles, and cannon. For small arms, as pistols and muskets, the balls are made of lead; for the artillery, of iron. (See also BULLET, SHOT, SHELL, &c.) The projectiles bearing the names fire-balls, light-balls, smoke-balls, stink-balls, are used either for giving light, or for harassing the enemy, by giving out a dense smoke or suffocating fumes. Although the term *ball* is applied to all missiles of this description, many of them are not spherical in shape, and they are generally fired out of mortars, and seldom out of guns. *Light-balls*, which are used in order to dis-

close the position or movements of the enemy at night, are composed of painted canvas stretched over a framework. They are filled with a compact mixture of saltpetre, sulphur, resin, and linseed-oil, and are furnished with time fuses. They give out a brilliant light, which lasts for a considerable period. *Smoke-balls* are composed of successive layers of strong paper, and are filled with gun-powder, saltpetre, powdered coal, tallow, and pitch. After ignition they give out dense fumes of blinding smoke for more than half-an-hour. *Stink-balls* are filled with a chemical composition which, when burning, diffuses a noxious suffocating odour around.

BALL, a gathering of people to amuse themselves by dancing, such as county balls, when the gentry resident in the county attend; military balls, when the entertainment is given by officers of the army; court balls, when the host or hostess is the sovereign; subscription balls, &c., &c. These entertainments are characterised by great decorum, and conducted according to established usage. When the assembly is not called together by any host or hostess—who thus make themselves responsible for the respectability of the guests invited—it is customary for a number of lady-patronesses to take the management, and tickets are only issued under their auspices. *Fancy balls* are similar entertainments, in which the persons attending dress themselves in historical or fancy costumes, *masked balls* when they conceal their identity by means of masks, dominoes, &c. These have fallen into great disrepute.

BALL, GAME OF, a gymnastic exercise of great antiquity. In the "Odyssey," we find Phæacian damsels playing ball to the sound of music. It was the principal exercise of the Spartans; and so highly was it esteemed by the Athenians, but they set up a statue to Aristonicus for his skill in it. The Romans of all ages and degrees played it, and Pliny describes old Spurius as warding off decrepitude by practising the game. The Greeks and Romans had four kinds of balls; two of leather inflated with air, and played upon the earth, by many running after it at once—consequently similar to our football; one a small ball, played like our shuttlecock; and one stuffed with feathers, and played by three persons in a triangle. In the Middle Ages, ball-playing was a regular amusement with the students of France, Germany, and Italy; and, at the present time, there are public places for ball-playing in Italy and Germany. The American Indians are especially fond of playing with the ball. In England, ball-playing has been a favourite exercise from an early date, one variety of game at ball giving its name to a celebrated west-end street of the metropolis—Pall-Mall. (See CROQUET, BASE-BALL, CRICKET, GOLF, TENNIS.)

BALLAD, *bal-lad* (Fr., *baller*, to dance), the name usually applied to a simple versified narrative, whether tragic or comic, often rude in style, adapted to be sung or accompanied by an instrument. It is thus properly a species of epic poetry, and from its peculiar style of rhythmical handling, it belongs to the lyrical class of compositions. (See EPIC and LYRIC.) It is sometimes used as synonymous with *song*; but the latter word, when properly employed, is always applied to a lyrical composition, while the ballad has always something of the historical or epic in it. The word is considerably deflected from its original signification. At first the name, which is of Italian

origin, was applied to a dance-song; and, indeed, the word has been used in nearly all ages in a very loose and vague way. At one time it was applied to what were properly known as romances both in Italy and Spain; again it was used to designate epic narratives, and again lyric-epic, which is taken here to be its proper application. The term "ballad" and "song" are often used indiscriminately, and we have announcements of "ballad" concerts, the staple of which are sentimental songs. It may be said broadly that a song is the musical expression of a sentiment or an emotion; and a ballad relates incidents musically, with sentiment and emotion added. To take familiar instances from Scotch verse, Burns' "Auld Lang Syne," and Scott's "March, march, Ettrick and Teviotdale," are songs; but Scott's "Young Lochinvar," and Lady Anne Barnard's "Auld Robin Gray," are ballads. Similarly, in English poetry, Shakspeare's "Come unto these Yellow Sands," is a song; and Gay's "Sweet William's Farewell," a ballad; and from Moore's "Irish Melodies" we may select "The Last Rose of Summer," and "By the Lake whose Gloomy Shore," as examples respectively of the song and the ballad. There can be no doubt that ballads have formed the first rude attempts at verse among all nations. Some Homeric critics maintain that the "Iliad" and the "Odyssey" are collections of popular ballads, the authors of which are unknown; and it is very probable that the earlier heroic poems, or even epics, such as those of the Spanish Cid, and the Nibelungen Lied of Germany, grew out of some such simple beginnings. Old Fletcher of Saltoun said if he were permitted to make the ballads of a nation, he cared not who should make its laws (Political Works, 1749), so strong a belief had he in the revolutionizing tendency of an heroic ballad or song. The northern Scalds, the Scottish and English minstrels, and the Continental troubadours, all composed heroic ballads, or chanted lays of love. The word *lay* itself (Ger., *leich*) was long applied to such compositions in Germany, before the Italian word *ballad* came into use among them. It is generally allowed that the best specimens known of the old popular ballad are to be found in Scotland, or more properly, perhaps, along the Scottish border, or the territory lying between England and Scotland. No doubt, in numerous instances, these old ballads had their integrity tampered with, and they were not transmitted from one generation to another without innumerable transformations. A large proportion of them have doubtless been preserved by oral tradition, and during every successive stage which the race made in advancement, one could trace this progress in the very ballads which they had transmitted, by the linguistic changes which their speech had undergone. Sir Walter Scott learned many old ballads from the singing or recitation of old people, who had learned them in childhood, and, doubtless, made many verbal alterations. Very likely most of the old popular ballads have passed through many versions. The English Robin Hood ballads are an instance in point. Nobody at the present day can say when or where, or by whom, they were transmuted; and yet there can be no doubt that they have been so. They were sung in the villages, and by the roadside, to hearers who could not read nor write, by minstrels who were themselves innocent of those accomplishments. Memory, therefore, was trusted to, and memory, as we all know, produces numerous variations. "Chevy Chase" and the

"Battle of Otterburne" are epic narratives on a much larger scale than usual. "Adam Bell," and "Clim o' the Cleugh," and "William o' Cloudeley," stand between the latter poems and such simple ballads as those of "Johnny Armstrong" and "Edom o' Gordon." The earliest English ballad now remaining, according to Ritson, an excellent authority, is a "Cuckoo Song" of the latter part of the reign of Henry III., beginning, "Sumer is icumen in, lllude sing cuccu." The earliest specimen of the Scottish ballad, after that nation became English-speaking, is given in the "Rhyning Chronicle" of Andrew Wyntoun, prior of Lochleven, about the year 1420, in which he relates the song that was made on Alexander III. of Scotland, who was killed by a fall from his horse in 1286. No modern nation has cultivated the composition of ballad poetry so assiduously as the Germans. The "Lenore" of Burger brought in a new era of ballad-writing in Germany. He confined the name "ballad," as Coleridge has also done in imitation of him, to an epic narrative, with something fabulous and supernatural in the background, but still possessing enough of earth to interest the mass of humanity. Schiller, Göethe, and Uhland have followed in his wake; and the latter has done much in modern times to familiarise the German mind with this species of composition. The Germans found many imitators in this country, among them Scott, Coleridge, Wordsworth, and Matthew Lewis, whose "Alonzo the Brave and the Fair Imogen," thrilled many imaginative but simple folk. The ballad poetry of the northern nations, particularly those of Iceland, of the Faroe Isles, of Denmark and Norway and Sweden, retain their ancient character to the present day. There is a peculiarly close affinity between many of these Scandinavian ballads and those of Scotland and England, which has been noticed by various writers, both in this country and on the Continent. The Spanish alone of all the Latin nations possess a ballad poetry of great antiquity and beauty, especially the ballads relating to the Cid Rodrigo, dating about the 12th century.

BALLET, *bal'-lai* (Ital., *ballare*, to dance), an entertainment on the stage, in which a story is represented by dancing and pantomimic gestures, accompanied by appropriate music. Among the Greeks, the art of expressing passion and sentiment by dancing was brought to a great degree of perfection. The modern ballet was originated in Italy, by Count Aglio, of Savoy. Baltagerini, a musician, introduced it at the court of France, in the time of Catherine de Medici. Since that time the ballet has retained possession of the stage. Noverre, a Frenchman, brought the ballet to its greatest degree of perfection about 1750.

BALL-FLOWER, a Gothic architectural ornament, supposed by some to be an imitation of a hawk's bell, or a pomegranate. It is so named because it appears like a ball enclosed by a flower.

BALLIOL COLLEGE, *bail'-li-ol*, Oxford, was founded by John Balliol, of Bernard Castle, Durham, and Dervorguilla, his wife (parents of John Balliol, king of Scotland), between 1263 and 1268. Its revenues at first provided for 16 scholars at 8d. per week each, but its resources were augmented in 1340, by the munificence of succeeding benefactors, particularly Sir William Fenton and Sir Philip Somerville. John Wycliffe

was master of this college in 1361, and among its scholars have been Evelyn, Bradley the astronomer, and Sir W. Hamilton.

BALLISTA. (See **BALISTA**.)

BALLIUM, *bal'-yum*, the courtyard or open space of a fortified castle. (See **BALILEY**.)

BALUSTER, *bal'-us-ter*, a term used to indicate the little columns which are placed in the openings in parapet-walls on the tops of houses, or which, when surmounted by a rail, form a balustrade to any long passage or gallery open on one side, and thus partially inclose it, for the sake of ornament or protection. The upright rails of a stair-case supporting the hand-rail are called balusters, and sometimes balisters or banisters.

BALUSTRADE. (See **BALUSTER**.)

BAMBOCCIADES, *bam-botch'-e-a-deez*, grotesque pictures of common or low life. The term is derived from Peter van Laar, who was surnamed the Bamboccio, or cripple, on account of his personal deformity, and who, although by no means the first painter of such scenes, became celebrated as.

BAMPTON LECTURES, *THE*, *bampt'-ton*, are named after their founder, the Rev. John Bampton, canon of Salisbury, who left certain estates, originally worth £120 per annum, to the University of Oxford, for the endowment of eight divinity lecture-sermons, to be preached annually at St. Mary's, Oxford, and afterwards published at the expense of the foundation. The preacher must be at least M.A. of Oxford or Cambridge, and the same person can never preach them twice. The lectures are to be on one of the following subjects:—To confirm and establish the Christian faith, and to confute all heretics and schismatics; upon the divine authority of the Holy Scriptures; upon the authority of the writings of the primitive fathers; as to the faith and practice of the primitive church; upon the divinity of Jesus Christ; upon the divinity of the Holy Ghost; upon the articles of the Christian faith as comprehended in the Apostles' and Nicene creeds. The first course was delivered in 1780 by James Bandinel, D.D.; and among the more distinguished persons who have held this office are Mant (1812), Heber (1815), Whately (1822), Milman (1827), Burton (1829), Hampden (1832), Mansel (1838), and Liddon (1866).

BAND, *band* (Sax., *band*), in Architecture, a broad flat moulding projecting a little beyond the surface of the building or column to which it is applied. It is sometimes placed along the front, or completely round buildings, and serves to indicate the different floors; but it is principally used in the basements of large edifices. The band of a column is sometimes moulded in various forms, and is then called a shaft ring.

BAND, a body of musicians attached to a regiment or battalion, and distinguished by a particular uniform. The term is now applied to any body of musicians who play together.

BAND OR BANDS, two small lappels of muslin attached to the collar; a part of clerical scholastic dress, the representation of the linen vestment which was used in the ancient church to cover the shoulders of the priest. The use of bands by clergymen, however, is now nearly obsolete. It is also used by barristers when in

professional dress, and at the universities, also at Winchester and Christ's Hospital Schools, by the boys themselves.

BANDALEER, or BANDOLEER, *bandoleer'* (Span., *bandolera*), was a large leathern belt thrown over the right shoulder, and hanging down under the left arm. It was worn by the ancient musketeers, for sustaining their firearms and for the carriage of their musket-charges, which, in small tin or wooden cases, were hung, to the number of twelve, to each bandaleer.

BANDED, *ban'-ded*, in Heraldry, any charge, such as a wheatheaf or bundle of arrows, is said to be banded when it is tied together with a band of a different colour from the charge itself. Thus a golden wheatheaf tied with a red band would be thus expressed in heraldic terms: A garb or banded gules.

BANDEROLE, *ban'-drol*, in Heraldry, a little streamer or ribbon attached to the shaft of a crossier, and folding over it like a label. In the architecture of the Renaissance period, the term is applied to the ribbon-moulding used to receive names or inscriptions. In military language, it means any little flag or pennon attached to a spear, and the fringed flag hanging from the straight trumpet used by cavalry, or sounded before the heralds when making any proclamation. It is sometimes written *bandrol* and *bannerol*.

BANDORE, *ban'-dor* (Span., *bandurria*), a stringed musical instrument, bearing a strong resemblance to a lute. It was invented by John Rose, in the fourth year of the reign of Queen Elizabeth.

BANE, *bain* (Sax., *bana*, a murderer), denotes poison, or any cause of destruction or overthrow; as, "My bane and antidote are both before me."

BANJO, *ban'-jo* (Sp., *bandore*, a kind of guitar), a musical stringed instrument greatly in favour with the negroes of the Southern United States. It has five strings, and is played with the fingers. The banjo is now very well known in this country, as one of the chief instruments of the so-called "nigger minstrels."

BANNATYNE CLUB, *ban'-a-tine*, a literary club instituted at Edinburgh, in 1823, by Sir Walter Scott, who was its first president. It takes its name from George Bannatyne (1543-1607), compiler of the celebrated MS. in the Advocates' library, entitled *Corpus Poeticum Scotorum*. Its object was the printing of rare works illustrative of the history and antiquities of Scotland, for distribution among the members, and it has published upwards of 100 quarto volumes of rare and interesting works. The club was dissolved in 1861.

BANNER, *ban'-ner*, is a piece of cloth attached to the upper end of a pole or staff, and usually bearing some device or emblem. Banners or standards have been in use from the earliest times. The chief use of the standard or banner in all times must have been to serve as a rallying-point to soldiers in battle. Hence they have always been regarded as an emblem of national honour, which the warrior was ever ready to defend at the risk of his life; and hence, banners taken from an enemy have always been regarded as special trophies of victory.

BANQUETTE, *ban'-ket'*, is a step or small

terrace of earth constructed along the inner side of a parapet for the musketeers to stand upon when the parapet is too high to fire over. It is usually made about four feet wide, and raised to within 4½ feet of the crest of the parapet. It is reached from the bottom of the rampart by a sloping path.

BAPTISTERY, *baptis'-ter-e* (Gr., *baptisterion*, a large basin or bath), the name given to the building in which the sacrament of baptism was administered in the early ages of the Christian church. Sometimes the term was applied to that portion of a church in which baptism was performed, in which case it meant the raised off space enclosing the font, which is to be seen in many English churches at the present day. In the early days of the Christian Church, baptisteries were separate from the churches to which they belonged, as they were required to accommodate a number of adult persons desirous of receiving the rite, and who were subjected to total immersion. They were circular in form, but at first were constructed in an hexagonal or octagonal shape, paved with marble, with large basins of the same material, generally three feet deep, either raised above the surface of the pavement and entered by steps, or sunk below its level. Some were of most elaborate architectural design; such as the circular baptistery of Pisa, 116 feet in diameter, three stories in height, and surmounted by a dome; and the baptistery of Florence, built of black and white marble, 100 feet in diameter, and magnificently adorned with mosaics by Andrea Tafi, and bronze doors of beautiful workmanship, executed by Andrea of Pisa and Lorenzo Ghiberti. The largest ever built is the one attached to the church of St. Sophia, at Constantinople; which was so spacious that on one occasion it served as a residence for the Emperor Basilicus. Other baptisteries of note are those of S. Giovanni in Fonte, and S. Giovanni Laterano, at Rome; and those at Ravenna, Asti, and the principal cities of Tuscany. It is supposed that the polygonal chapter-houses attached to English cathedrals were once baptisteries, and it is probable that the stone edifice at Glastonbury, known as the Abbot's Kitchen, served for a similar purpose. The places provided in Baptist chapels for the total immersion of adult members of that body are called *baptisteries*.

BAR, *bar* (Ang.-Sax., *baigan*, *beorgan*, *birgan*, *byrgan*), literally, to prevent, keep out or obstruct, to guard, to secure, to fortify, to prohibit. Is also applied to any elongated piece of wood or metal.

In Music, a perpendicular stroke drawn across the lines of a piece of music, to divide it into equal portions or measures of time, each of which portions is also called a bar. According to Sir John Hawkins, the use of bars is not to be traced further back than 1574.

In Heraldry, one of the nine *honourable* charges or figures placed upon the field or escutcheon, called *ordinaries*, and consists of two lines drawn across the field. It differs from the *fess* in this: the fess occupies a third part of the field, and is confined to the centre; whereas the bar contains only a fifth, is not limited to any part, and is never borne singly. It has two diminutives—the *closet*, which is half the width of the bar, and the *barrule* or *barrulet*, which is half the width of the closet. Of the closet, there may be five in one field, but the barrulet can be borne only in couples. *Barsmyelles* are so called when they stand in couples. When the shield contains a number of bars of metal and colour, alternate of even number, that is called *barry* of so many pieces; as, *barry of six argent and gules*.

BARBACAN, or **BARBICAN**, *bar'-ba-kan* (Fr., *barbacane*), a watch-tower placed before or over the outer gate of a castle-yard, forming an advance work to protect the castle, or, with regard to cities, a tower or outwork placed at any important point of the surrounding walls. Also, an aperture made in the wall of a fortress to fire through upon an enemy. Also, a fort at the entrance of a bridge, or the outlet of a city, having a double wall with towers. The barbican of the castle was a point from which the draw-bridge affording the principal way of egress and ingress across the surrounding moat could be readily defended by the guard constantly kept there to prevent surprise or a night attack from hostile troops. The origin of the word is doubtful; but the Norman-French are considered to have derived its use from an Arabic word, and to have introduced it into England at the time of the Conquest. The street in London called Barbican is the site of such an outwork to the old Aldersgate.

BARBARIAN, *bar-bair'-i-an*, a term derived from the Greek, and applied by that people to all who were not Greeks. The Greeks being at that time superior in civilization to their neighbours, the term implied a sense of inferiority. When the Romans first adopted the term, they applied it to themselves, but afterwards to all who were neither Greeks nor Romans. After the fall of the Western empire, it was applied to the Teutonic races, and subsequently to the Moors: hence the name Barbary, given to a district of North Africa. At present, the word is used in the sense of savage, rude, uncivilized.

BARBED AND CRESTED, terms used in *Heraldry*, to denote the comb and gills of a cock when it is necessary to speak of them as being of a different colour from the body. The more popular expression is *Wattled and Combed*.

BARBETTE, *bar-bel'* (Fr.), a terrace inside a rampart on which heavy guns may be placed and fired over the rampart, instead of through embrasures. In this way, a wider range can be obtained, as the guns can be swivelled round so as to point in different directions. When placed in this way, guns are said to be *en barbette*.

BARBICAN. (See **BARBACAN**.)

BARBITOS, or **BARBITON**, *bar'-bi-tos*, a stringed instrument resembling the lyre, but exceeding it in the number of its strings, the invention of which has been ascribed to Anacreon.

BARCAROLLE, *bar'-ca-roal* (Ital., *barcaruolo*, a boatman), certain songs composed by the Venetian gondoliers, and sung by them in their boats. The style of these airs is simple and natural, and they possess a kind of artless beauty which not only strikes common ears, but delights even the *virtuosi*. The Venetian gondoliers have the liberty of visiting all the theatres gratis, which gives them an opportunity of cultivating their ear and taste without expense. The gondolier songs are many of them so graceful and pleasing, that the musicians of Italy pride themselves on knowing and singing them. The term is now applied to musical compositions of a similar character.

BARD, *bard* (Brit., *bardd*, a poet), a word of uncertain derivation, but known to the Romans 200 B.C., and most commonly applied by the Celtic nations to their minstrels and poets.

Tacitus mentions that the ancient Germans sought to infuse military ardour into their warriors by the songs of bards; and Strabo and Ammianus Marcellinus say that the songs and hymns of the bards were famous in their day among the Celtic peoples. They seem to have belonged originally to all the warlike nations of Western Europe, and like the Scôps of the Anglo-Saxons and the Skalds of Scandinavia, they sang of the deeds of gods and heroes, accompanying their song with the music of the harp. It was only as civilization advanced that they were compelled to retire to the mountain retreats; and, accordingly, we find them strongest in Wales and Ireland. Warton (in his *History of English Poetry*) tells us the British bards were originally an appendage of the Druidical hierarchy; but it is now established, that long after the Druids were extinct, the bards, who had attained a sort of civil capacity, continued to flourish for a long period among the Celts. They formed a hereditary order, and exercised considerable influence. It is related of Edward I., that the more thoroughly to aid his conquest of the ancient Welsh, he gave orders to have all their bards destroyed. By the laws of Hoel Dha, given about the year 940, among the Welsh, it was enacted that the court bard was to be a domestic officer of the prince, and to occupy the eighth place in his court. The bard was, besides, to hold his lands free. The prince was to allow him a horse and a woollen robe, and the queen a linen garment. When invested with office, he received from his prince a harp of rare workmanship, and from his queen a ring of gold, neither of which he was to part with on any account. He was to lodge with the prefect of the palace; and on the three annual festivals he had the privilege of sitting next this functionary, who was enjoined to deliver the harp into his hand. Any person who injured this royal bard had to pay a fine of six cows and 120 pence; and any one who murdered him had to pay 126 cows. These bards had enormous memories, were first-rate genealogists, and not unfrequently flattered the vanity of the courtiers to a great degree by their highly-coloured narratives of the public and private transactions of the nation to which they belonged. They were consequently revered almost as much by the Welsh heroes as if they had possessed powers of divine inspiration. They were reformed and regulated by Gryffyth ap Conon, king of Wales, in 1078 A.D. Periodical cisteddfods, or sessions, of the bards, and their successors the minstrels, have continued in Wales down to our own time. The Irish bardic history begins with the Milesian invasion. There were three classes of them in Ireland—those who turned the tenets of religion into verse, and who in battle raised the war-song; those who sat in the open air and chanted the laws of the nation; and those who sang history and the exploits of heroes. Their profession was hereditary. Their songs are strongly marked by traces of Scaldic imagination, which they infused into the Welsh poetry when Gryffyth brought them over, early in the 11th century, for the purpose of improving the Welsh songs. In Ireland, the bards were associated in a hereditary guild, divided into three classes: the Fíledha, who sang in the service of religion and war, and were also the advisers and heralds of princes; the Braitheamhain, who chanted the laws; and the Seanachaidhe, who sang of doughty deeds and genealogies to princes and nobles. So proficient grew

the Irish bards on the harp that their skill has been universally acknowledged. It is said that Queen Elizabeth ordered all the Irish bards to be captured and hung, even as Edward I. ordered the Welsh bards, and for the same reason. Turlough O'Carolan, who died in 1737, is held to be the last Irish bard. In Scotland, the practice of bardism was very similar to that of Ireland, and there were bards in the Highlands down to the 17th century.

BARGE-BOARD (Ger., *berge-board*). In Gothic Architecture, the slate or tile projection over the gables of a building is called the barge-course; and, by way of ornament, or to protect the plaster, which is applied under the barge-course between the roofing and the wall, boards, sometimes richly carved and ornamented, technically called barge-boards, are fastened to the ends of the rafters that lie on the gable end. Good specimens of these decorative boards may be seen in Coventry, Oxford, and many old English towns. The terms barge-board and barge-course seem to be a corruption of *parge-board* and *parge-course*, taking their names from the *parget* or plaster of the latter.

BARITONE. (See BARYTONE.)

BARLEY-BREAK, *bar'-le-break*, the name of a popular pastime very common in the time of James I., and which is frequently referred to by older writers. It was played by six persons, three of each sex, who were formed into couples. A piece of ground was then divided into three parts, the centre one being called *hell*. One of the couples was stationed in this hell, and their effort was to catch either of the other couples in crossing from the one side to the other, when the couple caught had to take up their place in the centre. The couple in the centre were bound to keep together; but the others, when hard pressed, might sever. When all had been taken, the game was ended; and the last couple taken was said to be *in hell*, their punishment appearing to have consisted in kissing each other, not, however, generally considered to be a very terrible fate to encounter. Games of a similar kind, more or less modified, are still practised by young persons both in England and Scotland.

BARMECIDES' FEAST, *bar'-me-sides*, a phrase originating in a story in the "Arabian Nights' Entertainments," relating how the sixth brother of the barber was invited to a feast by one of the great historical family of the Barmecides of Khorassan, but had nothing set before him, although his host kept ordering him imaginary dishes of great delicacy, and asking how he liked them. The poor fellow, at first humouring the cruel joke, at last got angry, and boxed his host's ears, being afterwards rewarded by a really good dinner.

BARNACLES, *bar'-na-kls*, an old name for spectacles, derived from *bernicula* (a diminutive of *beryllus*), a transparent stone. In one of the dialects of old French, the form of the word is *bernique*.

In Heraldry, the representation of an instrument, similar to the modern twitchers, used to pinch the noses of unruly horses and so curb them.

BARRING-OUT, *bar'-ring*, a practice, which was of frequent occurrence in schools in former times, of securing the doors and windows of the school-room, when a suitable opportunity presented itself, against the entrance of the head

master and his assistants. It was generally done a short time before the vacations, to secure some additional holidays, or to obtain the removal of some fancied wrong. At a barring-out at the High School, Edinburgh, in 1595, fatal results ensued; one of the city magistrates, Baillie Macmoran, under whose patronage the school happened to be, being shot dead by one of the boys, in an attempt on the part of the authorities to force an entrance. Sir John Deane, founder of the Witton school, Cheshire (1558), ordered the pupils to observe the custom twice a year—a week before Christmas and Easter.

BARROW, *bar'-ro* (Sax., *berewe*), a name given to large artificial mounds of earth raised over the graves of warriors and men of renown in bygone ages. There are many barrows in Great Britain, particularly in Wiltshire and Dorsetshire. Some of these have been explored, and human remains have been discovered in them, deposited in a rough stone coffin, or, in cases where the body had been previously burnt, in a sepulchral urn made of clay. Flint arrow-heads, weapons of brass and iron, coins, bracelets, and cups, have also been found in them. The barrow called Silbury Hill, near Marlborough, in Wiltshire, is one of the largest in this country, being about 170 feet in height, and covering an area of nearly six acres. When barrows of this enormous size were raised, it is probable that they were intended to commemorate some great battle or other important event, and must be considered as serving a monumental purpose, for which we should use an obelisk or column in the present day. In some cases, natural mounds were taken advantage of in the formation of barrows. It is supposed that barrow-burial was practised from a period of unknown antiquity down to the eighth century.

BARRY, *bar'-re*, in Heraldry, when the shield is divided by horizontal lines into more than five equal parts, it is described as *barry* of so many pieces as there are divisions. The field of a shield is described as *barry-bendy* when it is divided evenly into lozenge-shaped pieces by the intersection of transverse and diagonal lines; and *barry-pily* when it is divided by diagonal lines from left to right and right to left, into pieces of the form of a wedge.

BARTHOLOMEW FAIR, *bar-thol'-o-mu*, was first held in the year 1133, and was conducted by the monks and priests of the church and priory of St. Bartholomew, which was situated in West Smithfield. In addition to the usual buying and selling, the fair was distinguished by the miracle-plays and mysteries of the priests, by athletic sports and games, and by the public disputations of the scholars from the London schools. In the middle of the 15th century, the fair had greatly increased, and had become an important market for cattle, cloth-stuffs, leather, &c. It was always held on the 24th August, St. Bartholomew's day, and the variety of exhibitions, booths, mountebanks, and theatrical performances, made the gathering very popular. Henry VIII. suppressed the priory of St. Bartholomew, and the charter was then transferred to the corporation of London. Ben Jonson's coarse comedy, *Bartholomew Fair*, gives a picture of the company and amusements. For many years the actors at the regular theatres used to appear in booths at the fair. After that time, the fair began to lose its character, and towards the close of the

16th century a row of houses was built on the site of the Cloth Fair, the name of which is retained still. In 1593, the year of the great plague, the fair was not held. The proceedings usually lasted three days; but after the restoration of Charles II. they were prolonged to fourteen days. In 1701, however, the fair was represented as a nuisance; and the traffic gradually lessened from that period, the fair becoming an annual exhibition of debauchery and dissipation. Many unsuccessful attempts were made to suppress it. Shows were discontinued in 1850, but the fair was not finally abolished until 1855.

BARTIZAN, *bar'-ti-zan*, a small round turret, with an arrow-slit, or very narrow window, generally projecting from the angle of a square tower, on the corner of a gable of a building, and supported on a corbel or bracket.

BARYTONE, or **BARITONE**, *bar'-i-tone* (Gr., *barus*, heavy, and *tonos*, tone), a tone of the male voice, the compass of which lies between the bass and the tenor. It is the lowest but one of the six registers into which the human voice is divided.

BASCINET, **BASINET**, or **BASNET**, *bass'-i-net*, a light helmet sometimes having a vizor, but more often without one, and basin-shaped—whence the name. During the reigns of Edward II. and Edward III. it was the common form of defensive head-dress adopted by the English infantry.

BASE, *baiss* (Lat., *basis*, a foundation; Fr., *bas*, low), that part of a column on which the shaft is placed, consisting generally of a square plinth and mouldings, formed of tori, fillets, cavettos, and astragals, in various combinations, between the plinth and the bottom of the shaft. The height of the whole base, including plinth and mouldings, is about half the diameter of the shaft at its lowest or broadest end. The Greek Doric column is the only form of pillar that has no base. In Gothic architecture, the base became higher and more varied in form than in examples of orders of the classic period.

BASE BALL, a game played in the United States of America, where it is almost as popular as cricket is in this country. It was founded on the well known British schoolboy game of "rounders," but is much more complex, and is played by teams of ten on each side.

BASE-LINE, in Perspective, is a line drawn at the extremity of the principal visual ray, and perpendicular to it. The base-line, in Surveying, is a principal line, measured with the greatest precision, on which a triangle or a series of triangles may be constructed, whereby other positions may be determined.

Base of a Solid Figure is its lowest plain side, or that on which it stands; and if the solid has two opposite parallel plain sides, and one of them is the base, then the other is also called the base. *Base of a triangle*, or any other plain figure, is usually that which lies the lowest; but any side may be the base, according to the position in which it may be conceived to be lying or standing.

BASEMENT, *baiss'-ment*, in Architecture, the lowest storey of any building, generally sunk beneath the surface of the ground, in private houses containing the kitchens and cellars. In public buildings of any architectural pretensions the base is, for the most part, low and of massive appearance, formed of "rusticated" masonry or stones the outer surface of which is hewn into

a rugged indented form, with a projecting band above, or cornice, which serves as a support to pilasters running up the walls of the building between the windows, as in Whitehall, London. There is no strict rule for the height of the basement storey; but it is generally regulated by the purposes for which it is intended, and the various uses to which the ground-floor above is applied.

BASILICA, *ba-sil'-i-ka* (Gr., *basilike*, a royal residence, a palace), a term applied to the large buildings erected in Rome, and other cities of the Roman empire, for the administration of justice. They also served the purpose of an exchange, in which merchants transacted their business, being generally built in the immediate neighbourhood of the forum. The following was the method of construction generally adopted. A large central space, about twice or three times as long as it was wide, was surrounded with columns, on which a roof, called the *testudo*, was supported. On either side of this space porticos were added, covered with a roof sloping from the columns of the *testudo*, and supported on the outer side by another row of smaller columns at a distance of about one-third of the breadth of the central space from those that held the main roof: a wall was afterwards substituted for the outer columns of the portico, to afford shelter to those within the building. The portico was divided into two parts by a floor, the upper part forming a gallery for the accommodation of those who were looking on at what was passing below, or perhaps for the exposure of commodities for sale, or for carrying on some handicraft trade. There was a vestibule, or large porch, at one end, and at the other a tribunal for the administration of justice, with a semi-circular recess, or apse, for the judge's seat, with *chalcidica*, or chambers for the use of the judge, counsel, &c., on either side of it. Basilicæ were unknown in Rome until about B.C. 200, but after that time they were generally built in towns in all parts of the Roman empire. The best example we have of the old basilica, or hall of justice, is that at Pompeii, built on the south-west side of the forum, occupying an area of about 300 feet long and 110 feet broad, including the external walls. The vestibule, at the lower end, is 100 feet by 30; the *testudo*, or central area, about 192 feet by 54; the porticos surrounding the *testudo* being 24 feet wide, while the tribunal, at the upper end, is 54 feet by 30, with *chalcidica* on either side about 30 feet by 24. On entering the vestibule at the left-hand side, there is a staircase leading to the galleries of the porticos. The early Christian churches, and, indeed, the churches of the present day, bear a strong resemblance to the old Basilicas in their general arrangements; and it is probable that many of these old halls of justice and exchange at Rome were converted into places of worship by the first professors of Christianity in the imperial city. Among the most famous at Rome may be mentioned Trajan's Basilica, and those of St. Peter, built A.D. 330; St. Paul, 386; St. Agnes, 625; and St. Maria in Trastevere, 1135. Many of the principal churches in Italy, especially at Rome, still bear the name. In the Middle Ages, the name was applied to the large structures erected over the tombs of persons of distinction.

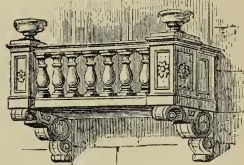
"**BASILICON DORON**" (Gr., royal gift), the title of a work written by James I. for the instruction of his son, Prince Henry. It is divided into three books. The first is entitled "Of a



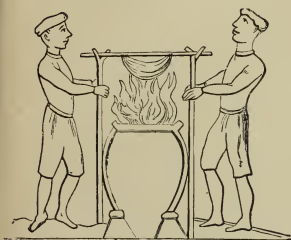
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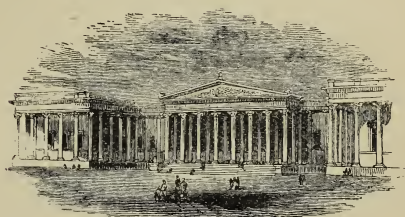
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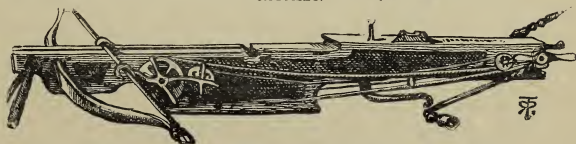
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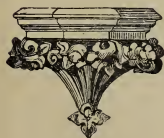
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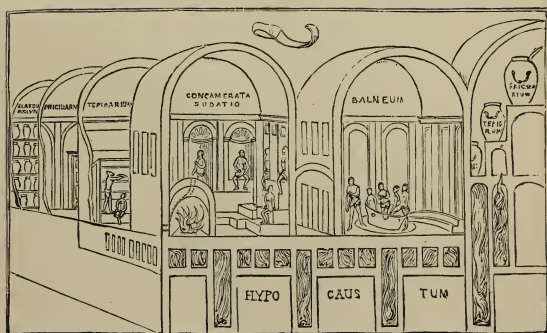
CROSS-BOW.



BRACKET.



BAIN-MARIE.



BATHS, ANCIENT ROMAN.

King's Christian Duty towards God;" the second treats of "A King's Duty in his Office;" the third expatiates upon "A King's Behaviour in Indifferent Things."

BASILISK, *ba'-sil-isk*, in Greek Legend, a fabulous serpent, said to have been able to kill with its breath or sight only. According to Galen, its colour inclined to yellow; and it had three small eminences on its head. The basilisk was speckled with whitish spots, and presented the appearance of a crown. Alian says that its poison is so penetrating as to kill the largest serpents with its vapour only; and that it will kill a man by merely biting the end of his stick. The sound of its hissing is enough to frighten away all other kinds of serpents. According to Pliny, the basilisk is able to kill all those who look upon it; but in the legends, the heroes sometimes faced it in safety, by using a mirror, which reflected its deadly glance on itself. It is also called a cockatrice, from the belief that it was generated from a cock's eggs, brooded upon by a serpent. It could only inhabit a desert, for its breath burned up all vegetation. The Greek word occurs in the Old Testament, and is translated, "adder" or "cockatrice." All these details are put forth by Matthiolus, Galen, Dioscorides, Pliny, and Erasistratus.

Basilisk, a kind of ordnance used in ancient times, and so called from its supposed resemblance to the fabulous serpent bearing the same name. It is now completely out of use; but during the wars of Hungary, it was much employed by the sultan Solymán. The basilisk cannon threw a 200-pound iron ball.

BASQUE LANGUAGE, *bask*, is the name given to the language spoken by the inhabitants of the Basque provinces of Spain, and of part of Spanish and French Navarre. The people call themselves *Euscaldunac*, their country *Euscalerria*, and their language *Euscara*. For a long time the Basque language was supposed to be a dialect of the Celtic; but later researches have shown that this is not the case, and that there is some ground for supposing it to be an ancient language, distinct from any of the other European languages; and it is said by some to have an affinity to certain of the Asiatic tongues. It seems to have been at one time the language of the whole of the Spanish Peninsula. No written Basque is known of earlier date than the 15th century. It is now spoken by about 600,000 Spaniards and French.

BAS-RELIEF. (See RELIEVO.)

BASS, or **BASE**, *baiss* (Ital., *basso*), the lowest or deepest part of a musical composition. The bass, or lowest part, is, with sound musicians, the most important of all the parts: it is, indeed, the foundation of harmony—the support of the whole superstructure of the composition. The word *bass* is technically used in various ways; as, *thorough bass*, *fundamental bass*, *ground bass*, *figured bass*, &c. A *figured bass* is a bass with figures written over or under each note, to indicate the accompanying harmonies. The term is used as synonymous with *figurative bass*, meaning a bass not confined to the plain *canto-fermo* style, but moving with more freedom, and with a melody of its own: for instance, the bass in Bach's arrangement of the Old Hundredth. *Fundamental bass* is that bass which forms the tone or natural foundation of the incumbent harmony, and from which, as a lawful source, that harmony is derived. *Ground bass* is used

sometimes as synonymous with *fundamental bass*, and sometimes as a bass which starts with some subject of its own, and continues to be repeated throughout the movement, while the upper part or parts of the composition pursue a separate air, and supply the harmony. This kind of bass was greatly in fashion about half a century since, but has for some time been rejected, as an unnatural restraint upon the imagination, and productive of a monotonous melody. *Thorough bass* is the art by which harmony is superadded to any proposed bass, and includes the fundamental rules of composition. This branch of musical science is twofold—theoretical and practical. Theoretical thorough bass comprehends the knowledge of the connection and disposition of all the several chords, harmonious and dissonant, and includes all the established laws by which they are formed and regulated. Practical thorough bass is conversant with the manner of taking the several chords on an instrument, as prescribed by the figures placed over or under the bass part of a composition, and supposes a familiar acquaintance with the powers of these figures, a facility in taking the chords they indicate, and judgment in the various applications and effects of those chords in accompaniment. The bass is that part of a concert which is the most heard, which consists of the gravest and largest sounds, or which is played on the longest pipes or strings of a common instrument, or on instruments larger than common for the purpose. The *bass voice* is the deepest quality of the human voice.

BASS, COUNTER. (See CONTRA-BASS.)

BASSET, a game at cards, played in a manner similar to that of the modern faro. In all cases the odds are greatly in favour of the banker: it is 1,023 to 1 against the player winning ten successive times. It was formerly very much played in France; but Louis XIV. issued some very severe decrees against the game, and after that time it was played under the name of *pour et contre*.

BASSET HORN (Ital., *corno di bassetto*; Fr., *cor Anglais*), an instrument now but seldom used. Its tone is very sweet, and in solo passages it is capable of producing very striking effects. It resembles a hautboy of a large size, a little bent at the top.

BASSOON, *bas-soon'* (Fr., *basson*), a musical wind instrument, made of wood, and played by means of a bent mouth-piece and reed. It is supposed to have been introduced into England by Handel, as a kind of help to the hautboy, which it so nearly resembles in tone as to make it the natural bass of that instrument. The compass of the bassoon extends from double B flat up to B flat in alt, three octaves, including all the intermediate semitones except B natural. When the bassoon ascends very high, the notes are generally written in the tenor clef.

BASSO-RELIEVO. (See RELIEVO.)

BASS VIOL. (See VIOLINCELLO.)

BASTION, *bast'-yon* (Fr.), a large mass of earth, usually faced with brickwork, or stones, and forming a tower which stands out from the ramparts surrounding a town or place to be defended. It corresponds with the bulwark of the ancients. It is formed of two faces, two flanks, and two demigorges. The junction of the two faces forms the salient angle of the bastion; and

the faces, together with the flanks, form the *épaules* or shoulders. Bastions are now made of various kinds—solid, hollow, regular, &c. Solid bastions are entirely filled up with earth up to the level of the platform of the guns, while hollow bastions have the interior level with the ordinary ground. Regular bastions are those which have their faces, flanks, &c., in due proportion. A demi-bastion, or *épaulement*, has only one face and one flank. A double bastion is when one bastion is raised within and upon the plane of another bastion. A flat bastion is one built in the middle of the curtain or wall connecting the two angles of a rampart. A composed bastion is one in which the sides of the interior polygon are unequal; thus making the gorges also unequal. A bastion is called deformed or irregular when the faces, flanks, &c., are not in symmetrical proportion; and a cut bastion, or bastion with a *tenaille*, is one whose salient angle has been cut off, and has, instead, an angle opening inwards, with two points outward. If the angle of a bastion is less than 60° , it is found to be too small for the use of guns; besides, being so acute, it is easily battered down by the enemy.

BAT. (See CRICKET.)

Bat (Fr., *bât*), originally meant a kind of pack-saddle, and was extended to baggage generally. In the Army, the servant of an officer is known as a bat-man, and horses and mules employed to carry the baggage and equipage of officers are bat-animals.

BATH AND BATHING, *bath*. Bathing, in its most general acceptation, denotes the application to the surface of the body, or a part of it, of a medium different, or of a different temperature, from that by which it is usually surrounded. The substance which constitutes this medium is termed a bath. Baths are of various kinds, and are distinguished according to the substances of which they are composed, as water, vapour, air, sand; according to their temperature, as cold, tepid, hot; according to the mode of their application, as plunge, shower, douche; according as they are general or partial, natural or artificial. We find the warm bath mentioned as early as the time of Homer. Afterwards both public and private baths came to be common among the Greeks; but we know little of their construction and arrangements. The public baths were mostly in connection with the gymnasia, and were taken immediately after their athletic exercises. It was not until the reign of Augustus that the public baths at Rome came to assume that magnificence and splendour which afterwards characterized them. They were termed *thermæ*, or hot baths; but they also contained cold baths. In the latter period of the empire, Rome contained an immense number of baths, in various parts of the city. Different authors reckon upwards of 800 of them; but the most celebrated were those of Agrippa, Antonius, Caracalla, Diocletian, Domitian, Nero, and Titus. Those of Diocletian are said to have been capable of accommodating 1,800 bathers. The vestiges of these buildings that are still to be seen indicate the great magnificence of the original structures. The usual time of bathing with the Romans was about two o'clock in summer, and three in winter. Their mode of bathing was as follows:—After undressing, the body of the bather was anointed with a cheap, coarse oil; on which he proceeded into the *spheristerium*, a very large apartment, devoted to exercises of various kinds, the most common of which was the ball. After taking a sufficient

amount of exercise, he went into the adjoining warm bath, where he washed, and scraped the surface of his body with instruments called *strigiles*, usually of horn or bronze. His body was then anointed with perfumed oils. He then passed into the *tepidarium*, and thence into the *frigidarium*, in order to soften the transition from the intense heat of the *caldarium* to the open air. Wherever the Romans settled, they built public baths, took advantage of hot-springs, as in the west of England where the city of Bath preserves the memory of the Roman baths. After the decline of the Roman empire, the most conspicuous baths were those erected by the Arabians and Egyptians, and as bathing was obligatory on all Islamites, bath-houses were established in every town where there was a mosque, and wealthy people had splendid private baths. The method of bathing in these Oriental baths is imitated in the modern Turkish bath, and consisted in inducing extreme perspiration by the action of hot air, then submitting to kneading and stretching of the limbs by an attendant, and at last, repose and gradual cooling in another room. In the modern Turkish bath the atmosphere of the "sweating" room—in which steam is produced by throwing water on hot pebbles, the temperature is sometimes as high as 140° Fahrenheit. The *vapour bath* is extensively resorted to in Germany and Russia. *Medicated baths* are those in which some substance, intended to act medicinally, is mixed with the liquid in which the body is immersed. *Sand baths*, in using which the bather covers his body with the sand of the sea-shore, or the heated sand near a hot-spring, are very ancient. *Peat and mud baths* are occasionally used in Germany. There are also *electro*, or *galvanic*, and *compressed air baths*, but they are but rarely used. *Douche baths*, those in which the bather is exposed to the action of a strong jet of hot or cold water, are well known, especially in connection with hydropathic treatment. (See HYDRO-PATHY.) The most common medium employed in bathing is water, at different degrees of temperature, from 33° up to 112° Fahr. Baths are divided into different kinds, according to their temperature. The simplest division is into cold and hot; including in the former all that communicate a sensation of cold, and in the latter a sensation of heat to the body. This test, however, is very variable, differing in different individuals at the same time, and in the same individual at different times; but, in most cases, it will be found to be between 84° and 88° Fahr. On entering a cold bath, a healthy person feels a sensation of cold, accompanied with a slight shuddering, and, if the change is considerable, a shock; the skin becomes pale and contracted, and the respiration hurried and irregular. In a few seconds the colour and warmth return to the skin, and a glow is diffused over the whole body. If the person remains more than ten or twelve minutes, the glow disappears, and is succeeded by a general feeling of chilliness. As the great object of cold-bathing is to produce this glow, the bather should always leave the water before it goes off. Hence cold-bathing always does harm when the powers of the body are too languid to bring on a reaction, and the chilling effects remain unopposed. In the same way, it is not proper to bathe while the body is in a chilled state, or exhausted by bodily or mental exertion; as in these cases a reaction is doubtful. When one is strong and in health, the morning, before breakfast, is the best

time for bathing; but for weak and delicate persons the best time is about noon. If one feels cold, languid, and drowsy after bathing, it is an indication that it does not agree with him; and it would be well for him to resort to the tepid bath for some time, until the vigour of his constitution is in some measure restored. Delicate persons should make a shorter stay in the bath than others. No one should bathe immediately after a full meal. Cold-bathing is particularly valuable in all cases of great nervous irritability and sensibility, accompanied with general debility. In cases of weakness of the limbs, torpor, and loss of power, it is also of much service. The *tepid* bath, which is intermediate between the cold and hot, and may be said to include the highest degrees of the one and the lowest degrees of the other, ranges from about 85° to 94°. The difference between it and the general temperature of the body is so small, that it can exercise but a slight effect upon the circulation. Its influence is chiefly confined to the skin, which it softens and cleanses, and promotes insensible perspiration. It is very soothing and salutary when the skin is dry or parched, and is sometimes had recourse to in cases of fever. It is also used as preparatory to the cold bath in persons of delicate constitution. The *warm* or *hot* bath ranges from 94° up to 112°, but generally not above 98° or 100°; or, more properly, the warm bath ranges from 94° to 98°, and the hot bath from 98° to 112°. The primary effect of a warm bath is to stimulate and enliven; the circulation and respiration are quickened, and the surface of the body expands. Gradually, however, the pulse becomes fuller and slower, the energy of the muscles disappears, and a tendency to sleep succeeds. It is of great use in alleviating local or general irritation, and is much resorted to in spasmodic and convulsive diseases. It is had recourse to in the case of weak and irritable constitutions, which could not support the shock of cold immersion. It ought, however, to be employed as a remedial agent only as it is too enervating for ordinary use. It may be prolonged so as to produce fainting, which is sometimes done, in order to relax the tension of muscles and sinews, for the reduction of dislocations, opening of constricted passages, and such-like. In all forms of bathing, caution is necessary; and especially in the use of medicated or Turkish baths, medical advice should be taken as to the probability of benefit. Some lamentable results have accrued from too precipitate a resort to these baths.

BATHOS, *bai'-thos* (Gr., depth), is a term employed in literature to denote an unconscious descent from the sublime to the ridiculous, from a lofty idea to a mean one; as in the well-known lines—

"And thou, Dalhousie, the great god of war
Lieutenant-general to the earl of Mar."

BATON, *ba-tawn* (*g*) (Fr., a staff), is a staff or club employed to denote dignity or power. It is the name given to the short staff presented by the French sovereign to each field-marshal on his appointment, as an indication of his power. It is also the name of the long staff carried by the drum major of an infantry regiment, and of the small light staff used by the conductor of an orchestra.

BATTERING-RAM, *bat'-ter-ing*, a military engine of high antiquity, which was used for

beating down the walls of besieged fortresses. It consisted of a massive beam of timber, with an iron or bronze mass upon one end, generally of the shape of a ram's head. In its earliest and rudest form it was worked by soldiers, who supported it in their hands. More generally, however, it was slung from a cross-beam, with an alternate motion communicated to it by means of ropes. It was in many cases covered by a rude form of shed, which served as a protection to those working the ram. Justus Lipsius speaks of one battering-ram as 180 feet in length, with a diameter of nearly 2½ feet, while the iron head weighed a ton and a half. Supposing this engine to be worked by 100 soldiers, it would acquire a momentum equal to that of a 36-pounder. This very ancient weapon of destruction is mentioned by Ezekiel. Thucydides speaks of it as being used in the Peloponnesian war, B.C. 429; and Dionysius the Elder certainly employed it a hundred years later at the siege of Motya. The Romans, who derived it from the Greeks, used it constantly and with great effect. It was sometimes, but not very frequently, used in the Middle Ages.

BATTLE-AXE, *bat'-tel-ax*, an ancient military weapon of offence. This weapon, which appears to have been used from the most remote periods in warfare, was made in two forms. The first had a single edge only, and was similar to the modern hatchet; the second had two edges, and was sometimes called the Amazonian axe, from a supposition that weapons of this kind were used by the female warriors. Axes were much employed as offensive weapons by the Celtic and Scandinavian nations. In the Bayeux tapestry the English are represented as using the battle-axe. The *pole-axe* was introduced by the Normans; it had an edge on one side and a sharp point on the other. The battle-axe fell into disuse towards the close of the 16th century.

BATTLEMENT, *bat'-tel-ment*, a wall or parapet on the top of a building, with notches or indentures, in the form of embrasures, to look through or to discharge missiles from, for the annoyance of an enemy. The rising parts of the parapet are called *merlons* or *copés*, and the open spaces are called *crenels*, *loops*, or *embrasures*. The purpose of the contrivance is, that a soldier may shelter himself behind the *merlon* while he shoots or observes the enemy through the *crenels*. Battlements were largely given to ecclesiastical and civil buildings in the Middle Ages by way of ornament, where they are often richly panelled or pierced with circles, trefoils, quatrefoils, &c. On fortifications, the battlements are generally quite plain, or pierced only with a very narrow cruciform or upright opening, the ends of which sometimes terminate in circles called *ailettes*, through which archers could take aim. Sometimes the coping on the top of the *merlons* is carried over the *embrasure*, producing the appearance of a pierced parapet. The use of this ornament is almost entirely confined to the English styles of Gothic architecture.

BATTUE, *bat'-too* (Fr., *battre*, to beat), an expression used to denote an unsportsmanlike method, adopted by owners of large estates in the autumn and winter months, of killing a great quantity of game which has been preserved for the purpose. A party of so-called sportsmen, each with two guns, which are loaded for them by attendant keepers, surround a copse or

plantation in which a great number of pheasants, hares, and rabbits are known to harbour. Men armed with long sticks are then sent in, who beat the bushes in all directions, which causes the game to quit their retreat and make for other covers. As they come out into the open space, they are shot down in all directions as fast as the guns can be discharged. This is not sport, for there is neither excitement nor danger, and little skill is required. It is simply butchery for amusement.

BAYADERES. (See **BAJADERES.**)

BAYEUX TAPESTRY, *bai-yu(r)* (Fr., *tapis*, carpet), a long piece of cloth, or rather canvas, 214 feet in length and 20 inches broad, preserved in the public library at Bayeux. It is embroidered in coloured yarns, with figures of men, animals, houses, ships, &c., with a border above and below the central portion, formed of emblematic devices; and forms a pictorial history of the events which preceded and brought about the conquest of England by William I. It is divided into seventy-two compartments, each bearing an inscription in Latin explaining its subject; and many of the figures have the names of the persons they are intended to represent attached, in the same language. It contains 1,512 figures in all; namely, 623 men, 202 horses, 55 dogs, 37 houses, churches, and castles, 41 ships and boats, 49 trees, and 505 smaller animals, birds, and sphinxes, principally in the borders. It is supposed to have been worked for the cathedral of Bayeux, under the superintendence of Matilda, the queen of William the Conqueror, and presented to his brother Odo, the bishop of that place, as an acknowledgment of the services he had rendered in the conquest of England. It went exactly round the nave of the building, where the ecclesiastical authorities, according to Ducarel, in his "Anglo-Norman Antiquities," 1767, were accustomed to hang it up on St. John's day in every year, and allow it to remain there for the eight days immediately following; but, from the inventory of the various things belonging to the cathedral taken in 1476, it seems probable that it was originally suspended round the nave on October, 1500, the day on which William won the battle of Hastings. It narrowly escaped destruction at the hands of the mob during the French revolution, and shortly after was brought to Paris, and exhibited there by order of Napoleon. In 1816, careful drawings of it were made by Mr. Stothard for the Society of Antiquaries. It has been a matter of discussion whether it was worked by Matilda, queen of William the Conqueror, or Matilda, empress of Germany, the daughter of his son Henry I.; but there is much evidence in the tapestry itself to show that it was embroidered shortly after the occurrence of the events it is intended to commemorate.

BAY-LEAVES.—From remote antiquity bay-leaves have been used in the customs and ceremonies of various nations. An honorary crown or wreath composed of these leaves was bestowed as a prize on men who were distinguished for any literary or military merit. Thus Spenser—

"So him they led through all their streets along,
Crown'd with garlands of immortal *baies*;
And all the vulgar did around them throng
To see the man whose everlasting praise
They all were bound to all posterity to raise."

There was a superstition that bay-leaves were able

to protect the wearer in a thunderstorm. And in an old play, called *The White Devil*, there are the following lines:—

"Reach the *bays*;
I'll tie a garland here about his head—
'Twill keep my boy from lightning."

The fading of bay-leaves was looked upon formerly as an omen of death. At the present day, they are used along with other evergreens in decorating houses and churches at Christmas. They are also used for flavouring in cookery.

BAYLE'S HISTORICAL AND CRITICAL DICTIONARY, the principal work of Pierre Bayle, one of the most eminent of French authors of the latter part of the 17th century. The first edition, forming two folio volumes, was published at Rotterdam in 1696, and a second and enlarged edition about five years afterwards. His first intention was to compose a Dictionary, the object of which was to correct the errors of other Dictionaries, and he issued a specimen, which, however, did not please the public and he altered his plan. The work, when it appeared, proved to be a Dictionary of subjects, historical, religious, political, literary, and scientific, arranged in alphabetical order, and treated in a critical and frequently sceptical spirit. The orthodox public were alarmed at the free manner in which certain subjects were handled, and the book incurred a public censure from the Consistory of Rotterdam. Four prominent objections were adduced:—The indecency of some passages; the tendency of the article on David; the support covertly given to the Manichean doctrine of evil, and the sceptical tenets of the philosopher Pyrrhon; the commendation of Epicureans and Atheists, by which a tacit support was supposed to be given to these tenets. Bayle, who professed a vague sort of Protestantism (that is, he had in early life abjured Catholicism) partially submitted to the authority of the Consistory, and in the second edition omitted the article on David, but defended himself against the other objections. The purchasers of the second edition, however, were so angry at the omission of the article, that "David" was reprinted in a separate form, and in later editions appeared as an appendix. The Dictionary is highly valued by literary critics for its charm of style, even when the writer's opinions are not accepted. One modern writer says, "The Dictionary is Bayle's masterpiece, and in it appears to perfection his various qualities—extensive and curious information, fluency of style, and that light sceptical spirit which has become closely associated with his name. His scepticism is that of the literary man of the world, who in his reading has encountered so many opposing and well-supported arguments on all subjects that he feels inclined to hold that no certainty can ever be attained." The articles on the Greek sceptical philosophers are especially characteristic of the author. In dealing with the doctrines advocated with so much acrimony by the contending churches of his time he expressed his firm conviction that morality and religion may be independent of particular religious opinions. In most of the articles, the writer wanders widely from the matter in hand, but is generally interesting, even when most diffuse. The Dictionary has been described as the dawn of the scepticism of the eighteenth century. His erudition is considerable, and his reading various and extensive. Isaac Disraeli says, "The taste for literary history we owe to Bayle, and the great interest he com-

municated to these researches spread in the national tastes of Europe. With Bayle, indeed, his minor works were the seed-plots, but his great Dictionary opened the forest. He exhibits a perfect model of the great literary character. Throughout a voluminous work, he experiences the enjoyment of perpetual acquisition and delight; he obtained glory, and he endured persecution." Warburton describes Bayle as "a writer whose strength and clearness of reasoning can be equalled only by the gaiety, easiness and delicacy of his wit, who, pervading human nature with a glance, struck into the province of paradox, as an exercise for the restless vigour of his mind."

BAYONET, *baï'-o-net* (supposed to be derived from Bayonne, the town where it was first made), a steel dagger, or short spear, attached to the muzzle of a rifle or similar weapon. The first bayonets were used in France in 1671, and were called *bayonets-à-manche*: they had handles which fitted into the muzzles of the guns. *Bayonets-à-douille*, or socket-bayonets, were a later invention. It seems very probable that the first bayonets consisted of short daggers, which the infantry were in the habit of sticking into the muzzles of their muskets when attacked by cavalry. The use of pikes went out as the value of the bayonet began to be appreciated. The bayonet, as an offensive weapon, has been of great importance in modern warfare, and the bayonet-charge, in which every nation thinks that it excels, is one of the most terrible manœuvres of infantry soldiers. The sword-bayonet is a more modern invention, and, when detached from the gun, can be used as a weapon by itself.

BAY-WINDOW, a window which forms a bay or recess in a room. It may project outwards from the wall either in a rectangular, polygonal, or semi-circular form, which latter has often been incorrectly termed a bow-window. Windows of this kind are very common in the Perpendicular style. Examples of them may be seen in the halls of the colleges at Cambridge and Oxford, as well as in the old halls of the English nobility and gentry. Bay-windows generally reach to the ground, and are frequently supplied with a seat, known as the bay-stall.

BEAD, *bede*, a small moulding whose vertical section is semi-circular, sometimes cut into pearls and other ornaments in Grecian and Roman architecture, in which it is more frequently used than in the Gothic. It is also called an astragal. (See ASTRAGAL.)

BEAKED, **BECQUE**, *beck'd*, *bek-kai'*, in heraldry, when the beak of a fowl is of a different tincture from the body, it is said to be beaked to such a tincture.

BEAN-KING, in the early customs of this country, was the title of the person who was chosen as king of the social festivals on the evening of the Twelfth-day. The mode of election is thus described:—A cake is baked with a bean and a pea concealed in it, and is divided among the company present, when he that receives the bean is king of the ceremonies, and she that has the pea is queen. (See TWELFTH-DAY.) A like custom prevails in other countries.

BEAR-BAITING.—Bears, like bulls and other animals, were formerly made objects of cruel sport by being baited with dogs. There appears to be an innate cowardly brutality in uncultured human nature which delights in inflict-

ing pain. A powerful animal, a bear or a bull, was secured to a post by a strong chain, and then fierce dogs were set at it. Of course, the dogs sometimes got the worst of the fight, and their sufferings added to the enjoyment of the spectators. In this country, the amusement was not limited to the lowest classes of society, but the nobility and even royalty shared in it. Fitz-Stephen speaks of it as a popular pastime in the time of Henry II. Sunday, after Church service, was a favourite time for engaging in it. In Queen Elizabeth's time, there was a bear-garden, or enclosed place, where bears were baited, at Southwark, and the Queen and the ladies and gallants of the time took pleasure in witnessing the fight between the chained bear and the dogs. In Shakespeare's *Merry Wives of Windsor*, Master Slender, when in his shyness he is at a loss for some fitting talk to "sweet Ann Page," asks her—"Be there bears i' the town?" and then goes on to brag that to see the bear loose is meat and drink to him, and that he has "seen Sackerson loose twenty times, and has taken him by the chain," from which it would seem that the same bear was frequently baited, and that the animals kept for the purpose were known by particular names. The Sovereign and many of the principal nobles paid wages to keepers of bears, known as "bear-wards." Edward Alleyn, the player, contemporary of Shakespeare, and founder of Dulwich College, held the office of keeper of the royal bear-garden. Bear-baiting, which had long been obsolete, was formally prohibited by Parliament in 1835, by the Act against Cruelty to Animals. (See BAITING.)

Bear-Leader.—Formerly at fairs and country festivities, and frequently in the public street, one of the great attractions was a dancing bear, which was muzzled and led about by a man who was called the bear-leader. The practice is now abolished on account of its dangers. The term of bear-leader, however, is still applied in a facetious sense to a tutor or guardian who takes charge of a young man of wealth or title when on his travels.

BEARD, *beerd* (Ang.-Sax.), the hair growing upon the chin, and other adjoining parts of the face, in men; and very rarely, in women. It is thicker than the hair of the head and is usually of the same colour, but always the same as the eyebrows. The beard is most abundant among those of the Caucasian race; and many persons, natives of Africa, America, and Australia, have little or no beard. The earliest notice on record regarding this manly ornament is in the Bible (Levit. xix. 27), where the lawgiver of the Jews warns them not to "mar the corners" of their beards. Jews continue to the present day to let the entire beard grow, when mourning, for the period of thirty days. The beard was held in great estimation among the Jews, as it is until the present day among the Arabians. "By the beard of Aaron," or "By the beard of the Prophet," is looked on as the most solemn oath of a Jew or a Mahometan. Nearly all the Eastern peoples prided themselves upon the fashion and form of their beards; and we have it expressly on record, that the Assyrians and Persians indulged in very long beards; and that often, and particularly their kings, they interwove the hair, the lower lip, and chin, with matted gold. With the ancient Jews and the modern Turks, the practice of anointing the beard with perfumes was adopted. Many of the ancient Egyptians, and particularly their kings, are often figured in the delineations of them which have come down to us, as entirely without beards. Beard-cases were

often, as in the Memnon's head in the British Museum, employed to conceal all the hair that was permitted to grow on the faces of this people. Among the Greeks, and especially by the Greek philosophers, the beard was held in estimation. Athenæus, the grammarian, tells us that the Greeks wore the beard until the time of Alexander the Great, who ordered his Macedonian soldiery to shave it off, lest the growth of it might give a ready handle to their enemies in battle. Philosophers have nearly always affected the beard as a mark of gravity, and even venerableness; and Strabo tells us that the Gymnosophists of India wore it long. Socrates and Plato were honoured with the distinction of "bearded master" by their pupils; and the origin of the proverb, *ek pagon oi sophoi* (wise men, from their beards), arose from this class of wise men among the Greeks indulging always in this ornament. The Romans wore the beard until the 5th century A.U.C., when Publius Ticius Mena brought over a colony of barbers from Sicily to exercise their profession on the Roman chins. Augustus, and the Roman emperors till Hadrian, shaved their beards; and Plutarch says that Hadrian allowed his to grow to hide the scars on his face. All the imperial personages after Hadrian grew their beards. It was customary, on the assumption of the *toga virilis* among the Roman youth, to consecrate the first-fruits of their beards to some deity. Homer and Virgil, Chrysippus and Pliny the younger, Plutarch and Strabo, Diodorus and Juvenal, Perseus and Prudentius, all celebrate this ornament on the faces of persons distinguished for the length or whiteness of their beards. The Lombards (or *Longbeards*), the early French, the ancient Britons, and the Anglo-Saxons after they conquered Britain, all nourished the growth of their beards with peculiar care. The English clergy by-and-by, probably in imitation of those of Western Europe, began to shave the beard, and until the time of William the Norman, the whole of whose army shaved the beard, there prevailed a bearded class and a shaven class, otherwise a laity and a clergy, in England. When Duke William conquered England, he insisted rigorously upon carrying out the Norman custom of shaving; and he thus constrained many of the high-spirited Britons rather to abandon their country than their whiskers. At a later period, the higher classes indulged in the moustache, or the entire beard, from the reign of Edward III. down to the time of Charles II. Beards of particular cut were often characteristic of a profession. Thus, there is the *sceletto* beard, and the *spade* beard, and the "beard of the general's cut," of Shakespeare. In the reign of Charles II. the entire face was often shaven; sometimes a slight moustache was tolerated, and sometimes the whiskers or hair on the cheeks was grown. In France it went out of fashion in the reign of Louis XIII., to be inaugurated again by Napoleon's soldiers. In Russia it was highly fashionable until Peter the Great ordered all to shave. "But such veneration," remarks Dr. Giles Fletcher, "had this people for these ensigns of gravity, that many of them carefully preserved their beards in their cabinets, to be buried with them, imagining, perhaps, that they should make but an odd figure in their graves with their naked chins." During the last fifty years, growing the whole beard has become very common in most European nations. First the practice began in Bonaparte's army, then it extended to Italy, then to Germany, then to Spain and Russia, and,

lastly, to England, where now the wearing of a moustache, or beard, is the general rule, and a clean-shaved face the exception.

BEARING, *bair'-ing*, a word employed with different meanings in various departments of art.

In Heraldry, bearing is that which fills an escutcheon; the same as "charge."

In Music.—In the tuning of keyed instruments, harps, &c., bearing notes signify those notes between which the most erroneous or highly-tempered fifth is situate, on which, also, the *wolf* is said to be thrown. Many tuners begin at C and tune upwards, through the progression of fifths, C, G, D, A, E, B, G flat, D flat, and A flat, and then stop, and begin again at C, the octave above the former note, and tune downwards through the fifths F, B flat, and E flat; and thus the resulting fifths A flat E flat produces *bearing notes*, owing to each fifth having been made more or less flat than the system of twelve notes will bear, the *least sum* of all their errors or temperaments being the *diachisma*. Some tuners are in the habit of throwing their *wolf* into the fifth A flat, D flat, and others into that of D flat, G flat.

Bearing the Bell, an expression conveying the idea of excelling in any art or pursuit. He that takes the lead in anything, or gains the prize in any contest, is said to bear away the bell from the rest of the competitors. The phrase originated from a custom in vogue in the 17th century, of giving a little bell of gold or silver to the winner of a horse race.

BEASTS OF PARK, OR CHASE, are, properly, buck, doe, fox, marten, and roe; but in common and legal sense extend likewise to all the beasts of the forest, which, besides the others, are reckoned to be hart, hind, hare, boar, and wolf, and, in a word, all beasts of venery or hunting. *Beasts of warren* are hares, conies, and roes.

BEAT, OR BATTEMENT, *beet* (Fr.), in Music, a transient grace or ornament in the performance of a note, denoting that a kind of shake is to be made, by beginning with the *half-tone below* the given note, and quickly repeating the given note and that: on the contrary, the shake marked *tr* is effected by beginning on the note *above* the given one (whether a half or whole tone distant), and repeating the given note and it alternately.

BEATING TIME, in Music, that motion of the hand or foot used by performers themselves, or some person presiding over the concert, to specify, mark, and regulate the measure of the movements. If the time be common or equal, the beating is also equal; as, down, left, right, up, or one down and one up; if the time be triple or unequal, the beating is also unequal; as, down, left, up, &c.

BEATINGS. Those regular pulsative heavings or swellings of sound produced in an organ, by pipes of the same key, when they are not exactly in unison, *i.e.* when their vibrations are not perfectly equal in velocity, not simultaneous and coincident.

BEAT OF DRUM. Many of the movements and manœuvres of soldiers are indicated by a particular method of drum-beating. There is a great variety of beats of which the principal are as follows:—the *general*, giving notice to troops that they are to march; the *assembly*, ordering troops to a rendezvous, or to join their colours; the *march* is the command to move, always with the left foot first; the *tattoo*, or *tap-too*, is the order to retire to quarters. The *réveille* is always beaten at dawn, and gives notice to the soldiers to rise, to the sentinels to

desist from challenging, and that leave is given to come out of quarters. *To arms* beats when soldiers are dispersed, in order to bring them together; and the *retreat* is a signal to retire from before the enemy; the *retreat* is also beaten in camp and garrison a little before sunset, and orders the soldiers to retire to their quarters. The *alarm* gives notice of sudden danger; and the *parley* demands a conference with the enemy. There are several other beats; such as the *chamade*, the long roll, the *rogue's march*, the *poineer's call*, the call to church, &c. The calls are also frequently given by the bugle.

BEAU, *bo* (Fr., fine), is applied to one who pays too much attention to his dress and personal appearance; satirically he has been described as being "a woman in everything but the sex—a man in nothing except the sex." The word has frequently been applied as a sort of social title to persons prominent in the fashionable world, as Beau Nash and Beau Brummell.

BEAUMONT AND FLETCHER'S PLAYS.—Francis Beaumont and John Fletcher, friends and literary associates, in the early part of the seventeenth century (see BIOGRAPHICAL DIVISION), united in the production of a great number of plays, a masque, and a poem; but it is almost impossible to decide satisfactorily their respective shares in the authorship. They lived together in the closest friendship for several years, and although, during the lifetime of the survivor, only three of the fifty-two plays, included in the collected edition of their works, were published with their joint names, there is strong internal evidence of the collaboration of Beaumont (ten years younger than his friend, and dying nine years earlier) in at least seventeen. Of the two, he seems to have possessed the more imaginative and tender spirit, and there are passages, evidently by him, in some of the plays which make a nearer approach to the pathos and beauty of the supreme master, Shakespeare, than any other contemporary poet in that great age of dramatic literature could achieve. Mr. Swinburne, a congenial poet and subtle critic, says, "the general style of his tragic or romantic verse is as simple and severe in its purity of note and regularity of outline as that of Fletcher's is, by comparison, lax and effusive. . . . In those tragic poems, of which the dominant note is the note of Beaumont's genius, a subtle chord of thought is sounded, a deeper key of emotion is touched than was ever struck by Fletcher, the higher genius is palpably subordinate to the stronger, and loyally submits itself to the impression of a loftier spirit. It is true that this distinction is never grave enough to produce a discord: it is also true that the plays in which the predominance of Beaumont's mind and style is generally perceptible, make up altogether but a small section of the work that bears their names conjointly; but it is no less true that within this section the most precious part of that work is comprised. . . . To Beaumont his stars had given, as birthright, the gifts of tragic pathos and passion, of tender power and broad strong humour; to Fletcher had been allotted a more fiery and fruitful force of invention, a more aerial ease and swiftness of action, a more various realness and fulness of light, exuberant speech. The genius of Beaumont was deeper, sweeter, nobler, than his elder's; the genius of Fletcher more brilliant, more prodigal, and more valuable than his friend's." We have quoted this passage from

the new edition of the *Encyclopædia Britannica*, because it would be scarcely possible to define with equal sympathy and critical perception the distinction between the characteristics of the two writers. It is greatly to be regretted that two men capable of producing so much that is light and beautiful, sharers in the intellectual light and moral sensitiveness which distinguished the glorious literary period in which they laboured, should have descended so low as they sometimes did, not only in some licentious scenes and lewd dialogues, but in the general plan and conduct of many of their comedies. To depict the conflict of passions, the strength and weakness, the fierce rage and the masterful sensuousness which disturb and often wreck the human soul, may be, indeed, is the province of the tragic writer, and the lighter phases of character, the wit and humour, the diversities of personal character are fit matter for comedy; but there is a depth to which the self-respect of a man of intellect, who possesses the higher gift of genius, should not permit him to descend. Abnormal instincts, the degradation of men and women by gross habits and diseased impulses, is no subject for either the comic or tragic muse. It may be a palliative, but it is no excuse for the gifted writers we are noticing, that they lived in a time when literature was greatly influenced by the baser spirit of antique authors, and that Ovid and other writers, now only partially read, or indeed accessible to the general public, were the favourites of the literary-minded men and women of fashion of the time. Shakespeare was as powerful in delineating the animal impulses as in exhibiting every other phase of human nature, but he was as natural as powerful. There is passion sometimes in his broadly comic characters, great grossness of expression, but morbidity and mere nastiness, never. Jonson was outrageously coarse, but only in depicting coarse characters; and Dekker's own comedies, and the scenes he interpolated in Massinger's finest play, are abominably foul in language. But Beaumont and Fletcher occasionally exhibited a foulness of mind in their conception of character and the conduct of the incidents of the play, which is peculiarly repulsive, because it appears to take pleasure in a morbid perversion of natural instincts. The wit and grace of style exhibited make the indecency more repulsive. It suggests Apollo mimicking the abominations of the satyrs. One modern writer says, "Some of the impurest of the plays are almost beyond conception, yet there is always an air of good breeding about them, and the filth is handled in the most gentlemanly manner." Professor Shaw, in his "Outlines of English Literature," points out a strange mental peculiarity of the writers:—"The most singular thing is that many of the most indelicate scenes and much of the coarsest language in Beaumont and Fletcher will be found to have been composed with the express purpose of exhibiting the virtue and purity of their heroines." The masterpieces of the associated writers are generally considered the *Philaster* and *The Maid's Tragedy*, plays exhibiting power of the highest kind, vigorous dramatic conception, and admirable diction.

Joint Productions.—Critics generally agree that Beaumont and Fletcher were associated in the authorship of the following plays:—*The Knight of the Burning Pestle*, *Philaster*, *The Maid's Tragedy*, *Four Plays in One*, *King or no King*, *The Honest Man's Fortune*, *The Coxcomb*, *Cupid's Revenge*, *The Scornful Lady*, *Wit without Money*,

Wit at Several Weapons, The Little French Lawyer, The Custom of the Country, Bonduca, The Laws of Candy, The Knight of Malta, The Faithful Friends. From internal evidence it is assumed that Beaumont had the greater share in the authorship of these plays.

By Fletcher Alone.—*The Loyal Subject, The Island Princess, The Pilgrim, The Wildgoose Chase, The Beggar's Buck, The Woman's Prize, The Mad Lover, Love's Pilgrimage, The Night Walker, The Faithful Shepherdess, The Protheuss, The Sea Voyage, The Spanish Curate, A Wife for a Month, Rule a Wife and have a Wife, The Fair Maid of the Inn, The Noble Gentleman.* It is supposed that in one play, *The Maid of the Mill*, Fletcher had the assistance of Rowley, and some critical writers are certain that they can discern the hand of Shakespeare in *The Two Noble Kinsmen*.

Publication of the Plays.—The first collected edition of the comedies and tragedies was edited by John Shirley, and published with a dedication (signed by ten players) to Philip, Earl of Pembroke and Montgomery, in 1647. It contained thirty-six plays, published for the first time. There have been many modern editions, that edited by the Rev. Mr. Dyce, and issued, in eleven volumes, being probably the best.

BEAUTY, bu'-te (Fr., beauté).—The beautiful, the sublime, and the picturesque go to form a portion of every theory of taste. No exact definition of beauty has ever been given, and we may be satisfied with a sentence descriptive of it. Beauty, then, is that which gratifies the taste of all. It springs most subtly from our capacity of enjoyment, or from our sense of the pleasurable; and hence the unparalleled diversity of opinion which has always existed regarding it. (See *ÆSTHETICS*.)

BEAVER, bee'-ver, that part of the complete helmet forming the lower part of the front-piece, which, with the *avantaille*, completed the visor. When the *avantaille* was raised and the beaver lowered, the whole face was uncovered; when arranged in the contrary manner, the face was completely guarded. The *avantaille* covered the face from the brows downward to the nose; the beaver from the chin upwards till it met the *avantaille*. Either could be opened independently of the other. When it was desirable to obtain a freer circulation of air, to eat or drink, while preserving the incognito, the beaver was lowered. When a knight wished, by disclosing his features, to make himself known, he raised the *avantaille* of his helmet. With alterations in the shape of the helmet, the word beaver was applied to that portion which could be let down over the face, equivalent to the *avantaille*; and writers of the Elizabethan age use the word in different senses. Spenser says of one of the characters in his great poem, "His dreadful, hideous head close couched on the beaver," which implies that the beaver covered the lower part of the face; but Shakespeare uses the phrase, "faintly through a rusty beaver peeps," meaning evidently the bars of the visor covering the eyes, and in *Hamlet*, Horatio informs the Prince that he recognized the features of the ghost because "he wore his beaver up."

BECK, bek (Ang.-Sax.), denotes a brook or small stream of water issuing from some spring or rill. It enters into the composition of the names of many English places; as, Welbeck, Bournbeck, &c. The German word *bach* has the same signification, and in like manner forms part of the names of various places; as, Griesbach.

BED, bed (Ang.-Sax.), an article of furniture upon which to recline for repose or sleep. In the early ages it was the practice of mankind to stretch themselves upon the skins of animals,

which was the custom of the Greeks, the Romans, and of the ancient Britons before the Roman invasion; after which event the skins spread for this purpose on the floor of the apartments were changed for heath and rushes; and, in the course of time, the introduction of agriculture supplied the central Britons with the greater convenience of straw beds. The beds at the inns of this period were filled with the soft down of reeds, and those of the Roman patricians with feathers. For many ages the beds of the Italians had been composed of straw; and from them it is probable our countrymen learnt its application. In Wales the beds of the humbler classes were stuffed with rushes as late as the end of the 12th century, and straw was used in the royal chambers of England at the close of the 13th. Beds appear to have been the chief household possession in England during the 14th century, and were considered of sufficient importance to be named in the wills of our sovereigns and the chief nobility. Anne, countess of Pembroke, for instance, in 1367, gave to her daughter a bed, "with the furniture of her father's arms." In 1368, Lord Ferrers left to his son his "green bed with his arms thereon;" and to his daughter his "white bed, and all the furniture, with the arms of Ferrers and Ufford thereon." Edward the Black Prince bequeathed to his confessor, Sir Robert de Walsham, a large bed of red camora, with his arms embroidered at each corner; while to another friend he left another bed of camora, enriched and powered with blue eagles; and, in 1385, his widow gave "to my dear son, the king, my new bed of red velvet, embroidered with ostrich feathers of silver, and heads of leopards of gold." Shakespeare bequeathed to his wife his "second best bed." In many parts of the country agricultural labourers now sleep on chaff beds; and in the Highlands heath is very commonly employed. In Italy and France, straw beds are still in general use. The modern bed is a case or sack of ticking, usually filled with feathers, and placed upon a raised wooden or iron framework, which is called the bedstead. The massive four-post bedstead, hung with heavy curtains, is now rare.

BEEF-EATERS, beef'-e-ters, a name popularly given to the Yeomen of the Guard. (See *YEOMEN*.) The name is a corruption of the French *buffetier*, from their waiting at the royal table on great occasions.

BEEFSTEAK CLUB, a club established in the reign of Queen Anne, and frequently alluded to in contemporary literature. The "Sublime Society of Beefsteaks" was established in 1735, by Rich, an actor of Covent Garden Theatre, and met in the painting-room of that theatre, for the purpose of dining on beefsteaks. This convivial club became very attractive, and Royal personages, and political, literary, and scientific men were proud of belonging to it. At each meeting one of the members, with no reservation as to rank, acted as cook. From this club grew another Beefsteak Club, which met in a room at the Lyceum Theatre, until 1867, when it became extinct and the portraits and other effects were sold.

BEEHIVE-HOUSE, a name given to small, round, stone huts which are found in Ireland. They are very rudely built, and are supposed to be the relics of the most ancient architecture of the island. The doors have flat tops, and are wider down below than above, as in the buildings of

Egypt. When a beehive-house is found alone, it is mostly near the site of an ancient oratory. This favours the notion that they were the dwellings of the priests. When two or three beehive-houses are clustered together, they are usually connected by a passage, and are often underground, resembling the Picts' houses or earth huts found on the north-east coast of Britain. Ruins of beehive-houses exist in the western islands of Scotland.

BEFFROI, OR BELFRY, *bef'-frwaw*, a movable tower used in ancient and mediæval sieges. It was as high as the walls of the fortress to be besieged, and was composed of various stages, the highest one being provided with a drawbridge, which could be let down upon the ramparts of the place attacked. Similar towers, but lower in height, were used for covering the approach of troops. They all moved on wheels, and were either pushed forward or drawn with ropes. They were used by Julius Cæsar in Gaul; and at the siege of Jerusalem the Crusaders made a beffroi, put it together at a short distance from the walls, and then pushed it up to the ramparts. A beffroi was also made by the royalists in the time of Charles I., when attacking a fortress in Herefordshire, held by the Parliamentarians. It was, however, captured, before the king's party could make use of it. In more ancient times, these movable towers were often covered with raw hides, to protect the inclosed soldiers from the boiling oil, &c. They were often provided with a battering-ram.

BEGGAR MY NEIGHBOUR, a simple and easy game at cards, mostly played by children, as no skill is required. The whole pack is dealt out to two players, and the cards are held with the backs upward; each player then turns up a single card in turn. When you play an ace, your adversary must give you four cards; three for a king, two for a queen, and one for a knave; and when the requisite number are laid down, you win the trick, and place the cards so won at the bottom of those in your hand. If, however, your opponent turns up an honour while paying for that which you have previously paid, you must pay for it in a similar manner, according to its value, and so on until a complete payment is made on either side. The player who first exhausts his adversary's hand, and gets all the cards into his own, is said to beggar his neighbour.

BELFRY, *bel-fre* (Fr., *beffroi*), a tower or turret in which bells are hung. It usually forms a portion of the fabric of a church, but is sometimes detached from it, especially in Italy. (See **CAMPANILE**.) In English churches, the bell-tower (or turret, where there is no tower) is ordinarily at the western end. In many of the old towns of the Continent, there are municipal belfries, erected for the purpose of calling the burghers together for the discharge of their civic or military functions. These belfries, in many cases, were attached to the town-hall, but there are numerous instances of isolated structures. The renowned belfry of Bruges is a fine specimen of the municipal belfry.

Bell-Ringing. Ringing changes upon peals of bells has been from very early times a favourite amusement in England. Many of the larger churches, old and new, have fine peals of bells, and societies of bell-ringers have been formed for the purpose of ringing peals, and very beautiful effects are produced by skillful ringers. Requests of money have been made to provide for the ringing of peals at certain times. The

first regular peal of bells in this country were sent in 1456 by Pope Calixtus III. to King's College, Cambridge; and this peal was for three centuries the finest in England. The number of changes which can be rung on a peal of bells is amazing to persons who have not given much attention to arithmetical calculation. A writer in the *Encyclopædia Britannica* says, "Three bells can ring six changes; four bells ring four times as many as three, i.e., twenty-four; five bells ring five times as many as four, or one hundred and twenty; and it may then be shown that it would take ninety-one years to ring all the changes upon twelve bells at two strokes to a second; whilst twenty-four bells would occupy more than 117 billions of years." These changes are technically known by many odd names, of which plain-bob, bob-trifle, bob-major, and grandsire bob-cator are specimens. The ringers, one for each bell, assemble in a chamber in the belfry below the bell-loft, from which the ropes attached to the bells descend through holes. Great skill is necessary in handling the ropes, and serious accidents have been known to occur to incompetent ringers. *Hand-bell ringing* is a favourite amusement, especially in rural districts. A series of properly tuned small bells are suspended from a frame and struck by small hammers held one in each hand of the performer. In some cases, the ringers hold a bell in each hand, and so ring the tune. (See **CARILLON** and **CHIMES**.)

BELLES-LETTRES (Fr.), is a vague, indefinite term, adopted from the French, and may be said to correspond to the Latin *literæ humaniores*, or the English *polite literature*. Generally speaking, the term applies to those branches of knowledge with which the imagination and taste are chiefly concerned—those that relate to beauty, harmony, grandeur, and elegance, that tend to soothe the mind, gratify the fancy, or move the affections. Poetry, rhetoric, history, and philology, are generally understood to come within the sphere of *belles-lettres*; logical and ethical studies belong to a higher sphere.

BELT, *belt* (Lat., *balteus*, a baldric or girdle), a term applied by astronomers to some dark stripes or zones that appear on the surface of the planet Jupiter parallel to its equator. (See **JUPITER**.) Orion's Belt is figured by three stars in a direct line with each other, situated horizontally in the centre of the constellation.

BELVIDERE, OR BELVEDERE, *bel'-ve-deer'* (Ital., *bel'a*, fair, beautiful; Lat., *videre*, to see), a name given to a place erected on the top of any building, from which a good prospect of the country around can be obtained. The structure is of Italian origin, and is commonly found in houses at Rome. The Belvedere at the Vatican is one of the most remarkable in existence, being built in the form of a horseshoe, having a gallery, inclosed at the back, running round the semi-circular part, and a balustrade in front. It commands a magnificent view of the country about Rome, extending as far as the Apennines. In France and England, the term is applied to summer-houses or buildings erected in gardens and parks, from some of which a good view of the surrounding scenery can be obtained.

BEN, *ben* (Heb., son), is a Hebrew word that enters into the formation of many proper names; as, *Benhadad*, the son of Hadad; *Benjamin*, the son of the right hand. In names of places in Scotland, the Gaelic *beann*, *beinn*, *beinne*, a hill, mountain, summit, pinnacle; Irish, *beann*; Welsh *bann* and *pen* are used in a similar manner.

BEND, *bend* (Sax., *bendan*), in Heraldry, one of the nine principal ordinaries, occupying a fifth part of the field when uncharged, but a third part when it has any device or charge upon it.

It is formed by parallel diagonal lines, drawn from left to right, or from the dexter chief to the sinister base. When the term bend is mentioned without any addition, the bend dexter is always meant. The bend has four diminutives—the bendlet, half the width of the bend; the garter; the ribbon; and the cost, or cotice, a narrow stripe generally borne on either side of the bend. Charges are said to be *in bend*, or *per bend*, when they are placed in the direction of the bend from the dexter chief to the sinister base.

Bend Sinister (Lat., *sinister*, the left), one of the nine principal ordinaries, being exactly the reverse of the bend, similarly formed, but by lines drawn from the sinister chief to the dexter base, or from right to left. It has two diminutives; the scarp, half the width of the bend, and the baton, used as an abatement to denote the illegitimacy of the bearer of the coat. (See **BASTARD**.)

BENEDICTINE FATHERS is the name given to celebrated editions of the works of the Fathers, from their having been edited by some of the most eminent of the Benedictine monks in France.

BENGALEE LANGUAGE. (See **HINDO-STAN**, **LANGUAGES OF**.)

"BEOWULF," *be'-o-wulf*, a remarkable and very interesting Anglo-Saxon epic poem, describing events relating to the Teutonic race, which occurred probably about the middle of the 5th century; and it is supposed, by critical writers, to have been brought to England by the Anglo-Saxons. Only one MS. of the poem is known to exist. It is in the Cottonian Library, in the British Museum, and seems to have been written in the early part of the 8th century, from an older version of the poem. The action of the epic turns mainly upon the adventures of Beowulf, a mythical hero, or demi-god, who determined to destroy a monster, Grendel. Scaef, one of the ancestors of Woden, and the common father of all the Scandinavian gods and heroes, also appears conspicuously. Mr. Kemble, the eminent Anglo-Saxon scholar, published, in 1837, a prose translation of the poem, with notes of great historical and philological interest.

BERLIN PORCELAIN, *ber-lin'*. A peculiarly hard white porcelain manufactured at Berlin, and much prized by chemists for its valuable properties. Tubes, capsules, crucibles, and other vessels used for chemical purposes, are made of a thin and white variety. They do not crack when heated, and remain intact under the action of the most powerful chemical agents. They replace platinum when required for the ignition of precipitates, containing easily-reduced metals which would destroy a platinum crucible. They are also of great value in testing, where the resulting precipitate is small, but coloured.

BERLIN-WOOL-WORK. (See **EMBROIDERY**.)

BERME, OR **BERM**, *berm* (Fr., *berme*), a piece of ground projecting horizontally from the foot of a rampart on the outside, forming a sort of pathway between the rampart itself and the scarp of the ditch surrounding the fortification. It is generally about three feet in width. Sometimes the berm has a low wall on the edge of the ditch, or a row of palisades sloping outwards.

BERSERKER, *ber'-ser-ker* (Scand., *ber*, bare, and *serker*, short of mail), a pirate chief

among the old Norsemen, so named from a mythological hero who went into battle without helmet or other defensive armour, trusting to his fierce courage.

BESTIAIRES, *lais-te-air'*, written books, with descriptions and drawings of animals, much in fashion, in the 11th, 12th, and 13th centuries in France. Some were in prose and some in poetry; some in Latin and some in the vernacular. They served to some extent the same purpose as the "Natural Histories" of later times; but fabulous animals, and romantic legends, were included, and symbolism was strangely mixed with actual description. One of the best known works of the kind is *Le Bestiaire Divin de Guillaume, Clerc de Normandie, Trouvère du XIIIe. Siècle*. We may find in these *Bestiaires* explanations of the meaning of the grotesque creatures found sculptured on the churches and public buildings of the middle ages.

BESTIARI, *bes-ti-air'-i-i*, men who fought with wild beasts in the Roman amphitheatre, or who were exposed to them by a decree of law. They were different from the gladiators, who only fought with each other. The bestiarii were regularly trained and paid for their services, and greatly increased during the Empire.

BETTING. (See **GAMING**.)

BEZÆ CODEX, *be'-ze ko'-dex* (Beza's Codex), a celebrated manuscript of certain books of the New Testament, presented in 1581, by Theodore Beza, to the university of Cambridge; whence it is sometimes called *Codex Cantabrigiensis*. (See **BIBLE** AND **CODEX**.)

BEZANT, OR **BESANT**, *bez-ant'*, a gold coin struck by the emperors of Constantinople, deriving its appellation from Byzantium, the former name of that city. They were the only kind of gold coin current in Europe for a long period of time. It appears that there were various kinds of bezants, differing in size, weight, and the quantity of alloy that was added. The common bezant of Constantinople was worth about nine shillings; it is often found in the form of a flat dish, with the head of our Saviour upon it. The name was afterwards given to gold coins struck in many European countries, and in England up to the time of Edward III. Silver bezants were also coined at Constantinople, similar in size to those of gold; and silver coins so called are mentioned in old records to have been current in this country in the reigns of Stephen and John. The only silver coins in the collections of numismatists known by this name are pieces of money struck at Constantinople, about 1100, and at later periods.

In **Heraldry**, one of the nine roundlets; a circular charge representing a piece of gold, taking its name from the old Byzantine coin so called. In blazoning armorial bearings in which these charges are found, the metal is not described, as the bezant is always *or*, or gold, and the name itself is therefore sufficient. A *bezanty cross* is a cross composed of bezants; and when the shield or any particular charge is strewn with bezants, it is described as *bezanté*.

BEZIQUE, *bai-zeek'* (probably for Spanish *besico*, a little kiss), a card game which, has recently become very popular. It resembles in some degree the old fashioned games, *marriage*, *brisque* and *cinque-cents*. It is played with two packs of cards, from which the twos, threes, fours, fives, and sixes have been rejected, and shuffled together and used as one pack. The rules of the

game are very complex. In *grand bezique*, four packs of cards are used, and nine cards are dealt to each player.

"BHAGAVAD-GITA," *ba'-ga-vad ge-ta'* (Revelations of the Deity), is the name of a very celebrated religio-philosophical didactic poem, dating from about the first century of the Christian era, and which is interwoven as an episode in the great Indian epic poem of the Mahābhārata. It comprises a complete system of the religious philosophy of India. The best edition of the text, with a Latin translation, is that of A. W. von Schlegel (Bonn, 1846). There is an English translation of the work by Wilkins (London, 1785), and one by Thomson (1855); and a German translation by Feipei (Leipsic, 1834). W. von Humboldt, published an exposition of the philosophy of the poem (Berlin, 1827).

BI, *bi* (Lat., *bis*, twice), a syllable signifying twice or double, and used as a prefix in certain compound names; as *biceps*, two-headed; *bicuspid*, two-pointed; *bi-carbonate*, a carbonate with two equivalents of carbonic acid to one of base; and also in the familiar compound words *bi-ennial*, *bi-partite*, &c., and in such compounds as *bi-weekly*.

BIBLE, *bi'-bel* (Gr., *ta biblia*, the books), is the name first applied by Chrysostom, in the 4th century, to that collection of sacred writings which is regarded by Christians as the revealed word of God. These writings are divided into two parts—the Old and the New Testament, the former containing 39 books, the latter 27. The Old Testament only is regarded as sacred by the Jews; but both the Old and New Testaments are held as sacred by Christians. The term Testament is a translation of the Latin *testamentum* of the Vulgate, which, in turn, is a translation of the Greek word *diatheke*, a covenant. In the New Testament, the Old Testament writings are designated as the Scripture, the Scriptures, or the Holy Scriptures. About A.D. 180, the term Holy Scriptures was used to include the Gospels; and Irenæus called the whole collection of the books of the Old and New Testament the divine Scriptures and the Lord's Scriptures. The Old Testament was a name used by St. Paul (2 Cor. iii. 14), being a translation of the Greek expression *palaia diatheke*, "old covenant." It would be more correct, therefore, to describe the two collections of books as the Old and the New Covenants—more correct etymologically, and certainly more correct doctrinally; but the familiar names are the heritage of the ages, and, whatever Dictionary makers might prefer, will remain fixed in the memory of Christians. The volume, as we now possess it—containing both the Old and New Testaments—is not only by far the most remarkable literary production of the world, viewed only in its literary aspects, but contains the most remarkable collection of historical records; the most complete code of ancient laws; the most intense utterances of joy, sorrow, aspiration, of which the human mind is capable; the most amazing prophecies, extending to the utmost limits of time; national and patriotic efforts; worship in which all the powers of the intellect and imagination and of the soul are united; of descriptions of tranquil pastoral life as backgrounds to unequal pictures of which tenderness, love, domestic affections, are the leading features; of passionate expressions of repentance or passionate outbursts of despair, subdued to

calm and adoration by the power of the Divine love; of glimpses of the majesty and wonderful beauty of an unknown world; of strife and conquest; of triumph followed by humiliation; of the recognition of a Divine Being, infinitely above human nature in power and beauty, but infinitely sympathizing with it—a conception unknown to any other ancient system of theology and philosophy. After the history, theology, prophecy, and poetry of the Old Testament, comes the Gospel of the New Testament, the history of the Divine mingling with the human, the pathetic and grand story of the life and death of Jesus; the record of the devotion, zeal, and sufferings of the apostles; the epistles which gave spiritual food to the early churches, and the closing vision of destruction and reconstruction, of the awful conflicts between evil and good, of the heavenly Jerusalem, of the great white throne, and of the end of death, sorrow, crying, and pain. The Jews divided the books of the Old Testament differently from the present method, so as to make only 22, and thereby to correspond with the number of letters in their alphabet. They divided them into the Law, the Prophets, and the Hagiographa, or holy writings. The Law comprised the five books of Moses. The Prophets were divided into the earlier prophets, Joshua, Judges, Samuel, and Kings, and the later prophets, which were again subdivided into the greater prophets, Isaiah, Jeremiah, and Ezekiel, and the twelve lesser prophets. The Hagiographa, or holy writings, contained the Psalms, Proverbs, Job, Song of Songs, Ruth, Lamentations, Ecclesiastes, Esther, Daniel, Ezra, Nehemiah, and Chronicles. The first three of these books were called the poetical books, or truth; the rest, the five rolls, from being read, on certain festivals in their synagogues, from manuscript rolls. As to the arrangement of the different books, the Jews not only differed from the Christians, but are not even agreed among themselves. Little is known of the history of the sacred books previous to the time of the Jewish captivity. According to the command of Moses, "the book of the law" was "put in the side of the ark." It is probable that to the same sanctuary were consigned, as they were produced, the other sacred books. After the completion of the temple, Solomon directed that these books should be removed into it, and, also, that the future compositions of inspired men should be secured in the same place. On the capture of Jerusalem by Nebuchadnezzar, and the consequent destruction of the temple, the autographs of the sacred books are supposed to have perished; but, doubtless, numerous copies of them existed at that time, some of which were carried by the Jews to Babylon; for we find Daniel (Dan. ix. 2, 11–13), when in captivity, referring to the law, and also expressly mentioning the predictions of Jeremiah, which he could not have done if he had not seen them. After their return from captivity, we are told that the people requested Ezra to bring forth "the book of the law of Moses, which the Lord had commanded to Israel" (Neh. viii. 1). Accordingly, Ezra is said to have collected as many copies of the sacred writings as he could, and from them to have prepared a correct edition. From the time of Ezra, the Hebrew canon is generally considered to have been completed, and Josephus affirms that from the time of Artaxerxes down to his own day, no one had dared either to add to, or to take from, or to alter, anything in the sacred books. Great care was taken by the Jews

to preserve the accuracy of the sacred text, and from an early period they were in the habit of numbering the words and even letters of each book. In the Talmud, a digest of Jewish laws compiled between the 2nd and 6th centuries, an enumeration of the various readings in different MSS., as well as the words and letters in the Bible, is given. When the Talmud was completed, the Masorites of Tiberias commenced their labours. They were named from *masora*, tradition, as their annotations were the oral traditions which had been handed down from previous centuries. They are said to have first divided the different books and sections into verses, and to have invented the vowel-points and accents. They marked the number of verses in each book, and the number of words and letters in each verse. They noted the verses where they thought something was forgotten, the words which they believed to be changed, the letters which they thought superfluous, the repetitions of the same verses, the different readings, the words which are redundant or defective, the number of times that the same word is found in the beginning, middle, or end of a verse, the different significations of the same word: such were some of the labours of the Masorites to insure the accuracy of the text. As to the value of the labours of the Masorites, Biblical critics are much divided in opinion. Some maintain that we are greatly indebted to them for preserving the purity of the sacred text, while others are of opinion that they corrupted the text by substituting for the ancient and true reading of their forefathers another more favourable to their prejudices, and more opposed to Christianity. The general opinion, however, is that they discharged their duties in a fair and conscientious manner. The oldest versions of the Hebrew Scriptures are the Samaritan Pentateuch, and the Septuagint, or Greek translation. The former of these is supposed to date from about the time of the Babylonish captivity; for it is not likely that, after that time, on account of the enmity that existed between the two peoples, they would have translated and adopted the books of the Jews. The Samaritan Pentateuch now extant is said to be a version from the earlier Hebrew Samaritan, into the more modern Samaritan, and was made before the time of Origen. Much difference of opinion has existed as to the value of the Samaritan Pentateuch; but it is now generally agreed that it is, on the whole, much inferior to the Hebrew MSS. The Septuagint (or version of the Seventy) is said by some to have been so called from having been approved by the Sanhedrim, or great council of the Jews, who were seventy in number. According to another account, Ptolemy Philadelphus, when founding his library at Alexandria, wished to have a copy of the Jewish laws, and applied to Eleazar, the Jewish high-priest at Jerusalem, for proper persons to translate the Hebrew Scriptures into Greek. Eleazar accordingly sent six elders from each of the twelve tribes, seventy-two in all—whence the work was termed Septuagint, seventy being a round number. There is no doubt that the version of the Septuagint was written at different times, and by different hands. The Pentateuch was first translated probably in the reign of Ptolemy Lagus, or of his son Philadelphus, and it is allowed to have been done with great fidelity and accuracy. Next in point of excellence is the version of the Proverbs. The Psalms and the Prophets have been very indifferently executed. The Septuagint

version was in great esteem among the Jews in the time of Christ; and very many of the quotations in the New Testament are made from it. Josephus, too, makes more use of the Septuagint than of the Hebrew text; but at a later period, when the Christians employed the Septuagint, the Jews rejected it. Fragments of three Greek translations of the Old Testament, all of, or near, the 2nd century of the Christian era, are preserved in the Hexapla of Origen, known as those of Aquila, Theodotion, and Symmachus, of which the first is the most valuable. The principal of the other early translations are the Syriac or Peshito (literal), from the Hebrew, made about the end of the 1st century, and embracing both the Old and New Testaments; the Coptic, from the Septuagint, probably about the 3rd century, and including the New Testament; the Ethiopic, from the Septuagint, probably in the 4th century, including also the New Testament; the Armenian, by Miesrob, from the Septuagint, in the beginning of the 5th century; the Italic, from the Septuagint, in the 1st or 2nd century, embraced also the New Testament—but only fragments of it now exist; the Vulgate (*see below*.) The Gothic version of Ulphilas, was made in the 4th century, but only a part has come down to us. The books of the New Testament were composed at different times, and for different purposes. They must have for some time circulated singly, but when or by whom they were collected into one book is uncertain; it seems, however, to have been done by degrees, and that some books were much longer in being received into the canon than others. The first evidence that we have of the existence of the collected books is in the Muratorian canon of the West, evidently written about A.D. 170. It is only a fragment, mutilated both at the beginning and the end; but it commences with a clear reference to St. Mark's gospel, and then passes on to St. Luke as the third, then St. John, the Acts, and the thirteen epistles of St. Paul. The epistle of Jude, the two epistles of John, and the Apocalypse of St. John, are mentioned in the text. The canon of the Peshito forms a remarkable complement to this catalogue. It includes the four gospels and the Acts, fourteen epistles of St. Paul, 1 John, 1 Peter, and James, omitting Jude, 2 Peter, 2 and 3 John, and the Apocalypse. Up to this point, therefore, 2 Peter is the only book that is not recognized as an apostolical and authoritative writing. The testimony of Eusebius as to the received books of the New Testament in his day is of value. He divides them into two classes, the acknowledged books and the disputed books. In the former class are the four gospels, the Acts of the Apostles, the fourteen epistles of St. Paul, 1 John, and 1 Peter. The disputed books he divides into classes—those which are generally recognized as authentic, and those which are considered spurious; the former comprising the epistles of James, Jude, 2 Peter, and 2 and 3 John; the latter the Acts of Paul the Shepherd, the Apocalypse of Peter, and the Apocalypse of John (if not a work of the apostle). The arrangement of the books of the Bible now generally accepted by Protestants is that adopted by Martin Luther in the 15th century. In the *Old Testament* we have first the Pentateuch (or five books), which describe the creation of the world, the Abrahamic covenant, the emigration of the descendants of Abraham to Egypt, the exodus or departure from that country under the Divine protection, the wanderings in the Sinaitic wilderness, the conquest and settlement of

Canaan, and the laws given by Moses for the regulation of the religious life of the nation. The books of Joshua and Judges, which carry on the history of the Jewish people in the period preceding the establishment of the kingdom of Israel. Then comes the pastoral story of Ruth, an introduction to the personal history of David, to be subsequently related in detail. This is followed by the two books of Samuel, in which, framed as it were in the historical narrative of a time of transition from the rule of judges, or chief magistrates, to the formation of a kingdom, appear three prominent figures—Samuel, the prophet; Saul, the first king of Israel; and David, whose personality as warrior, monarch, Psalmist, “egregious sinner and magnificent saint,” is the most striking in the Hebrew Scriptures, apart from the religious interest excited by his typical character. The two books of Kings and the two books of Chronicles carry on the history of the Jewish people, and the two kingdoms of Israel and Judah, from the accession of Solomon to the captivity and dispersion of the Jews after the Assyrian and Babylonian invasions. The succeeding books of Ezra and Nehemiah describe the return from captivity and the re-establishment of the Jewish nation, with Jerusalem as the chief city. Then comes the interesting story of Esther, an episode of the captivity; followed by the book of Job, which some critics suppose to have been written by Moses, and estimated to be one of the very oldest books in the world, as it is certainly one of the most interesting and profoundly religious. Then follow the Psalms, partly written by David, partly collected by him and later authors and compilers—some indeed as late as the period of the captivity. They were adopted to be chanted with musical accompaniments in the magnificent service of worship in the Temple; but they make a yet higher appeal to our admiration and sympathy. In them are the jubilant outbursts of religious enthusiasm, the most piteous wailings of the soul conscious of separation from God, the most passionate self-accusation, the most rapturous joy at regained communion with the Divine nature; prayers, prophecies, and exhortations; the tears of captives by the waters of Babylon, the sublime Allelujahs of the priests as the Ark was borne triumphantly up the steps of the Temple. Then come the Proverbs, the aphorisms uttered or collected by the intellectual and meditative Solomon; Ecclesiastes, that saddening declaration that “all is vanity,” where shadows darken the soul; and the Canticles, or Song of Solomon, in which the excess of gorgeous and sensuous images are held to be a type and a prediction of spiritual joy in the union of the soul with the church of the redeemed. After these are the books of the four greater prophets, Isaiah, Jeremiah, Ezekiel, and Daniel; and of the twelve “minor” prophets, Hosea, Joel, Amos, Obadiah, Jonah, Micah, Nahum, Habakkuk, Zephaniah, Haggai, Zechariah, and Malachi. These close the Old Testament volume, which includes in all 39 books. The New Testament contains the Gospels of the four Evangelists, Matthew, Mark, Luke, and John; the Acts of the Apostles, describing the work and labour of the Apostles among the Jews and Gentiles, and the establishment of Christian Churches; fourteen epistles by Paul, one by James, two by Peter, three by John, one by Jude, and the Revelation of John (the Apocalypse), in all 27 books.

Original Language of the Bible.—The investi-

gations of the most accomplished Hebrew scholars and comparative philologists lead to the conclusion that the *Old Testament* exhibits three stages of development in the Hebrew language. The Pentateuch and Joshua were written in Hebrew as spoken in the time of Moses. The second stage represents a period when the language had reached its highest point of purity and refinement, represented in the books of Judges, Samuel, Kings, Chronicles, Psalms, Proverbs, and other writings of Solomon, and the books of the prophets Isaiah, Hosea, Joel, Amos, Obadiah, Jonah, Micah, Nahum, and Habakkuk. The writings of the other prophets (parts of Daniel excepted), the books of Esther, portions of Ezra and Nehemiah, belong to the third period, when foreign words, phrases, and idioms, derived from Babylon and other places during the captivity, had become incorporated with the Hebrew. Parts of Daniel and Ezra were written in Chaldee, or eastern Aramaean, a language cognate to the Hebrew. The *New Testament* was written in Hellenistic Greek, “so called because it is not the classic Greek, in its different dialects, as written by Greek authors before the time of Alexander the Great, but the common Greek into which the various classic dialects were merged after the different Greek tribes had been rolled into one nation under the sway of Philip of Macedon. The Greek language, as thus modified, was carried into all parts of Egypt and the East, and it became the spoken language of the Jews who resided in the Greek colonies of Alexandria and elsewhere. The Jews who thus acquired and spoke the Greek language introduced forms and idioms of their own language, and words borrowed from the languages of neighbouring nations to the eastward; and the Greek, thus modified, became the Hellenistic, or Hebraised Greek, which was in use in Palestine in the time of our Saviour, and in which the books of the New Testament were written.”

Manuscripts of the Old Testament.—From a belief in the absolute integrity of the Hebrew text, in consequence of its supposed preservation from error by the Masora, it was not until the 17th century that any extensive collation was made of the various Hebrew MSS. Among the first to call attention to this subject was Louis Capell, who, in his “*Critica Sacra*,” published at Paris in 1650, called attention to the differences that existed between the Hebrew and Samaritan Pentateuch, and between the Hebrew text and the Septuagint version. At length the necessity of a collation of Hebrew MSS. began to be generally acknowledged; and some attempts to that purpose were made by several subsequent editors of the Hebrew Bible. The first great effort made in that direction, however, was that of Dr. Kennicott, commenced about 1760. The first volume was published in 1766, the second in 1780. The total number of *Codices* collated by or for Dr. Kennicott was 694, of which 634 were MSS., 43 printed editions, and the remaining 17 were copies of the Talmud, rabbinical works, and collections of various readings. Of these, about 250 MSS. were collected by Dr. Kennicott himself, and nearly 400 by his coadjutor M. Bruns, of the university of Helmstadt. Of these, some were collated throughout; others only in a few select passages, from being written in conformity with the same standard. In the opinion of Dr. Kennicott, 51 of these MSS. were from 600 to 800 years old, and 174 from 480 to 530. Soon after this, Professor De Rossi, of Parma, published his

various readings of the Old Testament, in 4 vols. 4to, entitled, "Varie Lectiones Veteris Testamenti ex immensa Manuscriptorum editorumque Codicum congerie haustæ et examinatæ" (Parma, 1784-88), to which a supplement was added in 1798. Here-examined many of the MSS. collated for Dr. Kennicott, and verified the extracts from them, besides examining numerous additional MSS. and printed editions; so that the total number of MSS. and editions examined by him amounts to about 1,200. Of the immense mass of various readings which these collations exhibit, multitudes are insignificant, consisting frequently of the omission or addition of a single letter in a word. They serve, however, to show the authenticity and integrity of the sacred text in all that constitutes the proper essence and substance of divine revelation—its doctrines, moral precepts, and historical relations.

Manuscripts of the New Testament.—Down to the time of the invention of printing, the books of the New Testament were preserved in manuscript; but the vigilance produced by the constant controversies between the Catholics and heretics has served to maintain its general purity. The existing MSS. are written on tanned or dyed skins, parchment, papyrus, and paper of linen or cotton. They are distinguished as *uncial* and *curtive*—the former being written in capital letters, and the latter having small letters and a greater resemblance to later styles of writing. MSS. of a later date than the 10th century are curtive. Upwards of 1,400 MSS. are known to scholars, and have been collated without any essential differences being found between them; numerous errors, however, had crept in, from the commutation of letters, transposition of words, seeing and hearing incorrectly, abbreviations, attempts at correcting the text or making it clearer. Modern critics reckon no fewer than 80,000 discrepancies in the various MSS. The oldest MSS. belong to about the 4th century. The most important MSS. are the *Codex Sinaiticus*, discovered in 1859 by a Russian scholar, M. Tischendorf, in the monastery of St. Catherine, Mount Sinai; the *Codex Alexandrinus*, in the British Museum; the *Codex Vaticanus*, in the Vatican, at Rome; the *Codex Regius Parisiensis*, in the imperial library at Paris; and the *Codex Bezae*, or *Cantabrigiensis*, in the library of Cambridge university.

Early Printed Versions.—The first complete Hebrew Bible was printed by Soncino, in 1488. The first printed edition of the entire New Testament was that of the Complutensian Polyglott, published at the cost of the celebrated Cardinal Ximenes. It was commenced in 1502, and the printing of the book was finished in 1514, but the publication was delayed till 1522. Meanwhile, Erasmus, in 1516, published his first edition of the New Testament. Editions by Simon de Colines and the Stephens (father and son) appeared in Paris between 1543 and 1569. The first attempt at a critical edition was made by Beza; and the first edition was published in 1565. The first truly critical edition is that of Dr. John Mill (Oxford, 1707), in which are gathered together 30,000 various readings. Bengel, Wetstein, Griesbach, and Scholz followed in the same field. Scholz's first volume appeared in 1830, and the second in 1836; he describes no less than 674 different MSS., of which 331 were, for the first time, collated by himself. Rinck, Lachmann, and other German scholars have also produced critical editions of great value.

The Vulgate, or authorised version of the Roman Catholic Church, is a translation into Latin, supposed to have been begun by Jerome about 385 A.D., and partially founded on an old version, known as the Italic, said to have been made in the beginning of the 2nd century. The Gospels were completed about 387, and the Old Testament twenty years later. The earliest printed edition was produced by Gutenberg and Fust, without date, but probably about 1455; and in 1462 Fust and Schoeffer printed another edition. In 1546 the Council of Trent declared the Vulgate authentic; and in 1590 Pope Sixtus authorised the production of a critical edition, but that being considered inaccurate, was superseded two years afterwards by the edition of Pope Clement VIII., and this is the version now used by the Roman Catholic Church. The *Douai Bible* is the only English translation sanctioned by that Church. The Old Testament was translated by the students of the Roman Catholic College at Douai, in France, and published there in 1609. The New Testament, translated at the English College at Rheims, had appeared in 1582.

English Bible.—It is probable that soon after the introduction of Christianity into this country, portions of the Scriptures were translated into the language of the people. The earliest version of which we have any account is a translation of the Psalms into the Saxon language, by Aldhelme, or Adhelm, first bishop of Sherborne, about the year 706. A Saxon version of the four Gospels was made by Egbert, bishop of Lindisfern, who died 721. By some writers, Bede is said to have made a complete translation of the whole Bible; but this seems doubtful, though he certainly did translate portions of it. King Alfred executed a translation of the Psalms, and Elfric, archbishop of Canterbury, is said to have executed a translation of the Pentateuch and certain other portions of Scripture, about 995. The first English translation of the whole Scriptures is supposed to have been made in the 13th century; and towards the end of the 14th century, one John de Trevisa, a native of Cornwall, is said to have made a translation of the entire Bible. This was, at any rate, done by his celebrated contemporary John Wyclif, or Wickliffe, rector of Loughborough, in Leicestershire. With the aid of various assistants, he, about the year 1380, translated the entire Bible from the Latin Vulgate into English. He was probably assisted by pupils and learned friends, and by the help of transcribers he multiplied copies, which were distributed among his friends. There are 170 copies extant. After the introduction of the art of printing, portions of the Bible occasionally were published; but the authorities of the English church did all they could to discountenance the circulation of the Scriptures in the language of the people: so that it was not till 1526 that a Bible or Testament was printed in English, and then only at a foreign press. William Tyndale resolved to accomplish this object, and, with this view, he went over to the Continent. In 1526 he completed an English translation of the New Testament, which was printed in two editions, one in quarto, the other in duodecimo. Copies of these were secretly conveyed into England, where they were immediately bought up and burned; but this only stimulated Tyndale to greater exertions, and enabled him to carry on his operations. He next proceeded to prepare a version of the Old Testament, and published a translation of the Pentateuch and the book of Jonah. He did not, however, issue a

complete translation of the Bible. The first English version of the whole Bible is that by Miles Coverdale, a friend of Tyndale, and which was printed at Zurich in 1535, and dedicated to Henry VIII. It was favourably received by the court, and it was enjoined that a copy of this translation should be laid in the choir of every parish church in England, for every one to read at his pleasure. The next English Bible, also printed abroad, is known as Matthew's Bible, from Thomas Matthew, the assumed name of the editor (John Rogers), also a friend of Tyndale. It was published in 1537, and the text is that of Tyndale and Coverdale, slightly altered. The Great Bible, or Cranmer's, so called from the preface being written by that prelate, was published in 1539: the text is Coverdale's revised. In the same year appeared Traverer's Bible, by Richard Traverer, the text of which is based upon that of Matthew's Bible. The next important translation was the famous Geneva Bible, which appeared in 1557. During the reign of Mary, several of the more prominent Reformers took refuge in Geneva; among whom were Coverdale, Gilby, and Whittingham. They employed themselves in preparing a new edition of the Bible, accompanied with notes. From the strong leaning which it showed to the views of Calvin and Beza, it was long the favourite Bible of the English Puritans and the Scotch Presbyterians. This edition is frequently called the Breeches Bible, on account of the rendering of Genesis iii. 7, "and they sewed fig-tree leaves together, and made themselves breeches." The Bishops', or Parker's Bible, so called from Matthew Parker, archbishop of Canterbury, who, with eight bishops, and several other scholars of reputation, revised the previous translations, and compared them with the originals, appeared in 1568. King James's Bible, the one still in universal use in this country, and known as the *Authorized Version*, was prepared in the reign of James I. At a conference of divines at Hampton Court, in the beginning of 1604, for settling the peace of the Church, the importance of a new translation of the Scriptures was brought prominently forward, especially by Dr. Rainolds, an eminent Puritan. It met with the approval of the king, and arrangements were at once made for carrying out the project. Fifty-four scholars, most distinguished for that kind of learning which this duty required, were selected for the work, and finally forty-seven of them undertook it. These were divided into six companies, to each of which a certain portion of Scripture was assigned. Each person of a company was to prepare a translation of the whole portion committed to that company, and these several translations were then revised at a general meeting of the company. When a company had in this way agreed upon their version, it was to be transmitted to each of the other companies, so that no part was to be without the sanction of the whole body. Two of the companies sat at Westminster, two at Oxford, and two at Cambridge. The final revision of the whole was conducted in London by two delegates from each of the six companies. These twelve scholars, who met daily in the hall of the Stationers' Company, were occupied for nine months in the discharge of their critical duties. The work of translation and revision occupied from 1607 to 1610, and it came forth from the press of Robert Barker in 1611. This version has been adopted by all sects of Protestant Dissenters as well as by the Church of England. In a chapter of "Curiosities of

Literature" Isaac Disraeli gives some particulars respecting various English versions of the Bible. The great desire to possess Bibles led to the production of mutilated editions, crowded with gross errors, and published at a very low price to supply the demand. One of these versions is said to have contained six thousand errors; and G. Garrard, the writer of a letter to the Earl of Stafford, still preserved, says, "Sterne, a solid scholar, was the first who summed up the three thousand and six hundred faults that were in our printed Bibles of London." Disraeli says, "These errata unquestionably were a great part voluntary commissions, passages interpolated, and meanings forged for certain purposes; sometimes to sanction the new creed of a half-hatched sect, and sometimes with an intention to destroy all Scriptural authority by a confusion or an omission of texts—the whole was left open to the option or the malignity of the editors." Printing of English Bibles was an open trade, competing printers issued them at the lowest possible prices; and, in order to be able to produce a low-priced article, made no scruple of condensing or omitting, and "they proceeded till it nearly ended with having no Bible at all." The University of Cambridge endeavoured to produce correct editions, and there was a great contest between the University and the London printers—the latter underselling the former, even at a loss to themselves, and importing Bibles from Holland, where they could be printed at a very low cost. An anecdote is preserved to the effect that the learned Archbishop Usher, the Biblical chronologist, one day hastening to preach at St. Paul's Cross, entered the shop of one of the booksellers and purchased a Bible for use in the pulpit; but when he came to look for his text, to his astonishment and horror, he discovered that the verse was omitted in the Bible he had purchased. He complained to the King, and so caused the Royal attention to be directed to the negligence and incapacity of the London press. During the war between the King and the Parliament, smuggled Bibles were introduced from Holland, but large numbers were confiscated and burned by order of the Assembly of Divines, on account of the errors contained in them, which were not credited to the carelessness or incompetency of the printers; but to *malice prepense*. At length the privilege of printing Bibles was conceded to one William Bentley, but he appears to have been unable to defend his monopoly. A printer named Field published in 1653 a "Pearl Bible," in a small form, remarkable even then for gross errors, made, it was asserted, for the purpose of falsifying the text, Field having received considerable sums of money for doing so. Butler, in "Hudibras," speaks of "the maggots of corrupted texts;" and, says Disraeli, "In other Bibles, by Hills and Field we may find abundant errata, reducing the text to nonsense or to blasphemy, making the Scriptures contemptible to the multitude." In the course of a few years, however, the value of the authorized version was so generally recognized that it effectually superseded all others.

Revised Version.—In February, 1870, the Bishops of the province of Canterbury in convocation recommended a revision of the authorized version, rendered advisable by the great advance of scholarship since the 17th century, and the accumulation of additional materials, the result of modern discovery. Two companies of eminent scholars of various denominations were formed,

one for the Old and one for the New Testament. The former have not yet completed their labours; but the revised New Testament was published in May, 1881, and has been almost universally accepted as a noble monument of erudition and patient labour, and a most valuable revision of the hitherto accepted text. The co-operation of American scholars was invited, and two committees were formed in America, for the purpose of acting with the two English companies. The first step, obviously, was to revise the original texts, the next to give a faithful translation into English. The assistance of divines, scholars, and literary men, at home and abroad, was asked when unusual difficulties occurred. The whole time devoted to that work extended over ten years and a half; the first revision occupying about six years, the second about two years and a half, the remaining time being spent in the consideration of the suggestions from America, and reserved questions arising out of the labour of the English company. The result of the revision is that a few passages, being regarded as of doubtful authenticity, have been expunged, and in some instances a more exact rendering of the original has been arrived at; but, it must be admitted that, in the desire for literary accuracy, the familiar beauty of the old version has, in a few instances, been impaired without any commensurate advantage to the meaning.

Chapters, Verses, and Punctuation.—The present division of the Bible into chapters, is generally believed to have been first made by Cardinal Hugo, of St. Carus (the first compiler of a concordance) in the 13th century, although some writers attribute it to Stephen Langton, Archbishop of Canterbury; but as early as the 3rd century, the Gospels had been so divided by the Alexandrians. The first numbering of verses appeared in the edition printed by Robert Stephens in 1551; and the first English Bible divided into verses was the Geneva Edition of 1560. In the 39 books of the Old Testament, there are 929 chapters, and 23,214 verses; in the 27 books of the New Testament, 260 chapters, and 7,959 verses. In the Revised Version the old chapters and verses are marked in the margin for convenience of reference and comparison; and divisions into paragraphs, or sections, without regard to the old method, are adopted. In the old manuscripts there is very little attempt at punctuation, and scarcely any attention was given to the subject until the appearance of the printed books.

Printing Bibles.—The Crown claims the exclusive right to print the authorized version, and, in the exercise of this prerogative, permits the Universities of Oxford, and Cambridge, and the Queen's printers to issue editions. But Bibles with notes may be published by any person. In Scotland, a Bible Board has power to grant licences to print the authorized version.

BIBLIA PAUPERUM, *paw'-pe-rum* (Lat., Bible of the poor).—Before the invention of printing, a copy of the Bible being rare and expensive, the principal subjects of the Old and New Testament were represented in some forty or fifty pictures, with a short explanation, or texts of Scripture, underneath each. This was called the "Biblia Pauperum." It was compiled by Bonaventura, general of the Franciscans, about 1260, and printed early in the 15th century. It and a similar, but more extended work, called "Speculum Humanæ Salvationis" (the Mirror of

Human Salvation), in a great measure took the place of the Bible in the Middle Ages, and were the chief text-books used by the clergy in addressing the people. Many copies of these works still exist.

BIBLICAL ANTIQUITIES, or **BIBLICAL ARCHEOLOGY**, *ar-ke-ol'-o-je*, is the name given to that science which treats of the antiquities, the political constitution, customs, manners, &c., of that people with whom the Holy Scriptures originated, or those to whom it refers. A knowledge of biblical archaeology is indispensably necessary to a right understanding of many parts of Scripture. Though this study primarily regards the Jewish people, yet the manners, customs, &c., of the neighbouring Semitic nations necessarily form part of it. The principal sources of this knowledge are the Old and New Testaments, the books of Josephus on Jewish antiquities and the wars of the Jews, the writings of Philo, the Talmud and the Rabbinical works, the Greek, Roman, and Arabian writers, ancient monuments, and the works of modern travellers. For the first work on Hebrew archaeology we are indebted to Dr. Thomas Godwyn, whose book, "Moses and Aaron, or Civil and Ecclesiastical Rites used by the Ancient Hebrews," appeared at Oxford in 1676. The Germans have particularly distinguished themselves in this department, and in this country a large number of books and publications have been issued.

Society for Biblical Archaeology was established by Dr. Samuel Birch and others in 1871, and besides publishing a "Journal" has issued several very important works.

BIBLICAL CRITICISM is that science which concerns itself with the origin, history, and present state of the original text of Scripture. It comprises a critical knowledge of the languages in which the Scriptures were originally written; the composition, collection, and preservation of the different books; the age, character, and relationships of the various MSS.; the various readings; and the different philological and historical means to be employed in order to determine what the text was as it proceeded from the different penmen. Its tendency is not, as is said by some, to weaken or destroy the foundations of Christianity, but, on the contrary, to strengthen and increase them, by proving the authenticity and genuineness of the Holy Scriptures. It is divided into two kinds, a lower and a higher—the former merely concerning itself with the words as they stand in the various MSS. or printed texts; the latter implying the exercise of the reason in judging of the texts from the context, from the circumstances of the writers, &c. Of these two, the former is the more important and reliable; the latter, as being more open to conjecture, is liable to be abused. Biblical criticism is of comparatively recent origin. It arose, partly at least, in consequence of the controversies in which men became involved on religious subjects, and the necessity of having a correct standard to which to refer.

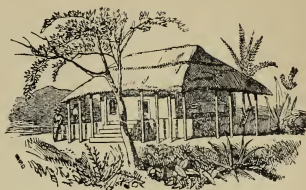
BIBLICAL INTERPRETATION, or **SACRED HERMENEUTICS**, is the science of teaching or expounding the meaning of the Sacred Scriptures. When the interpreter has obtained a pure text by the results of criticism, he enters upon another and a more important field—that of its interpretation. He has now a twofold duty to perform: first, to associate in his own mind, with the terms, the exact idea



BALISTA.



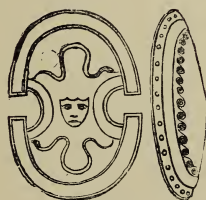
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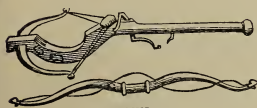
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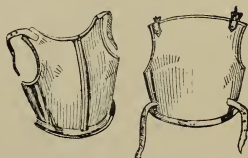
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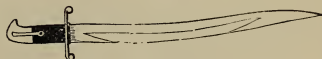
BOOTS.



BUSKIN.



RAYONET.



BUCENTAUR.

which the Spirit intended they should symbolize; and, secondly, to excite the same idea in others by means of spoken or written signs. He has to apprehend the meaning of Scripture, and to exhibit it when apprehended, so as to be intelligible. Biblical interpretation is either grammatical or historical—grammatical, when the meaning of the words, phrases, and sentences is made out from the *usus loquendi* and the context; historical, when the meaning is illustrated and confirmed by historical arguments, which serve to evince that no other sense can be put upon the passage, whether regard be had to the nature of the subject or to the genius and manner of the writer. (See HERMENEUTICS.)

BIBLIOGRAPHY, *bib-li-og'-ra-fe* (Gr., *biblion*, a book, *graphe*, a writing), may be defined to be the science of books. Anciently, the term *bibliographia* denoted the writing or transcription of books, and a writer or copyist was termed *bibliographos*. When the transcribing of books ceased, after the introduction of printing, bibliography came to signify an acquaintance with the ancient manuscripts, and a skill in the deciphering of them. The term was not used in its present signification till about the middle of the 18th century, and it was first introduced in France. Bibliography (for which *bibliology* or *bibliomasy* would be more appropriate) denotes a knowledge of books, with reference to their constituent parts, their different editions and degrees of rareness, their subjects, authors, classes, &c. There are some who would include under bibliography many other branches of knowledge, indeed, so many as to render it impossible to lay down any limits for the science at all. The sphere and duties of the bibliographer are well and clearly laid down by a recent writer: "It is the business of the bibliographer, then, to trace the history of books in regard to their forms and other constituents, and consequently to trace the beginnings and progress of typography. It belongs to him in a particular manner to mark the differences of editions, and to point out that edition of every book which is esteemed the most correct and valuable. In the case of books published anonymously, or under feigned names, it is his business to indicate the names of their real authors, in as far as the discoveries of literary history may furnish the means of doing so. All remarkable facts attaching to the history of books, such as the number of their editions, their rareness, their having been condemned to the flames, or suppressed, belong to the province of bibliographical inquiry. Further, every one who engages in any particular line of study must, of course, wish to know the books that have been published in regard to it, or in regard to any particular point that interests his curiosity; and it is the business of the bibliographer to furnish this most useful species of information; in other words, the compilation of catalogues of those books which have appeared in the various branches of knowledge, constitutes another department of bibliography. It is by means of such catalogues that the student comes to know what has been written on every part of learning; that he avoids the hazards of encountering difficulties which have already been cleared; of discussing questions which have already been decided; and of digging in mines of literature which have already been exhausted." The number of bibliographical works that have appeared in our own and other countries are so numerous that we can only afford to notice a few of the princi-

pal of them. One of the earliest attempts to present a complete survey of printed literature was made by Conrad Gesner, whose *Bibliotheca Universalis*, in 1 vol. folio, appeared in 1545. The works are arranged according to the names of their authors; but it is limited to works in Greek, Latin, and Hebrew; so that even in his day it could not be said to be universal. *Essai de Bibliographie*, appended by Cailleau to his Dictionary, was published in 1790, and Boulard's *Traité Élémentaire de Bibliographie* (Paris, 1806), and Peignot's *Manuel Bibliographique* and *Dictionnaire Raisonné de Bibliologie* (1801 and 1802), and *Cours Élémentaire de Bibliographie*, by Achard, are valuable works by French authors. The *Bibliotheca Britannica* of Dr. Robert Watt of Glasgow is, with all its imperfections, a most meritorious and useful work. It was published in 4 vols. 4to (Edinburgh, 1824), in two of which the works are arranged alphabetically, according to their titles, and in the other two according to their authors. It professes to be "a universal catalogue of all the authors with which this country is acquainted; embracing every description of authors, and every branch of knowledge and literature;" and it also gives a large number of works in other languages. The other labourers in this field of literature, however, have generally confined themselves within narrower limits. Some confine themselves to books written upon one particular department of knowledge, to works belonging to a particular period, or issuing from a particular press; to anonymous or pseudonymous works, or to rare or curious books. Of these we may mention Lowndes's *Bibliographer's Manual of English Literature*, giving an account of rare, curious, and useful books, 4 vols. 8vo (London, 1834); Darling's *Cyclopædia Bibliographica*, a library manual of theological and general literature and guide to books (London, 1857-8); *A Critical Dictionary of English Literature and British and American Authors*, by S. A. Allibone, 3 vols. 8vo (Philadelphia, 1859-71); T. Hartwell Horne's *Introduction to the Study of Bibliography*, described on high authority as "perhaps the most useful book of this kind in the English language" (1814); Dibdin's *Library Companion* (1824); Brunet's *Manuel du Libraire et de l'Amateur des Livres*, 4th edition, 5 vols. 8vo (Paris, 1842-44) (a new and enlarged edition of this most valuable and useful work is now in course of publication); Querard's *La France Littéraire*, 10 vols. (Paris, 1827-42); De Bure's *Bibliographie Instructive, ou, Traité de la Connoissance des Livres rares et singuliers, contenant un Catalogue raisonné de la plus grande partie de ces livres précieux qui ont paru successivement dans la République des Lettres depuis l'invention de l'imprimerie*, 7 vols. 8vo (Paris, 1763-8); M. Barbier's *Dictionnaire des Anonymes et Pseudonymes*, 4 vols. (1806-9); Ebert's *Allgemeines bibliographisches Lexikon*, 2 vols. (Leipsic, 1821-30) (an English translation of this work has appeared in 4 vols. 8vo, Oxford, 1837); Heinsius's *Allgemeines Bücherlexikon*, with supplements, 11 vols. (Leipsic, 1812-52); Ersch's *Handbuch der deutschen Literatur*, 2nd edition, 4 vols. (Leipsic, 1822-40) (3rd edition, by Geissler, 1845); Vater's *Literatur der Grammatiken Lexika, und Wörter Sammlungen aller Sprachen der Erde*, 2nd edition (Berlin, 1847). Many bibliographical works are limited to books printed within a given period, or relating to a special subject. Others describe works issued by certain eminent printers, and others enumerate anonymous works, and reveal the real authors.

BIBLIOMANCY, *bib-li-o-man'-se* (Gr., *bib-tion*, a book, and *manteia*, divination), an attempt to gain an insight into futurity by opening the Bible and taking the passage which first offers itself as a means from which guidance or advice may be derived with regard to any worldly matter about which the diviner may be in doubt. Some practised it by going into a place of worship, and taking the first verse of Scripture that might be read after their entrance. The practice of this art was prohibited by some of the councils of the Church in the 5th and 6th centuries. It was introduced into England about 1070, and was much in vogue with the enthusiasts that were found among the troopers of Cromwell. Another method of divining by selecting passages at random from a book, was the *Sortes Virgilianæ*, in which a copy of the works of the Latin poet Virgil was used instead of the Bible.

BIBLIOMANIA, *bib-li-o-ma'i'-ni-a* (Gr., *biblion*, and *mania*, madness), is a word denoting a passion for the possession of rare and curious books. The true bibliomaniac is not guided in his selection of books by their mere utility or the value of their contents, but rather by some accidental circumstances connected with them. With him, rarity is what gives its chief value to a book; so that he is ever searching after books of which only a few copies have been printed, or are known to exist—early editions, works that have issued from a particular press, printed in a particular manner, on vellum or on large paper—books bound in a particular way by a particular binder. Uncut volumes are much prized by some—"Do you think I want to read my books?" asked one collector. The editions of the classics by the Elzevirs and the Foulises are much prized; of the Italian classics, by the Academy della Crusca; the books printed by the Elzevirs and Aldus; those bound by Derome, Bozerian, Lewis, or Payne. At the sale of the library of the duke of Roxburghe, in 1812, a copy of the first edition of Boccaccio's "Decameron," published by Valdarfer in 1471, was sold for the enormous sum of £2,260. This led to the formation of the Roxburghe Club, for the printing of rare or hitherto unedited books, the members of which agreed to dine together annually on the anniversary of the sale of the Boccacio. (See ROXBURGHE CLUB.) Dr. Dibdin, in his "Bibliomania; or Book-madness, containing some account of the history, symptoms, and cure of this fatal disease," after giving an account of the eminent book-collectors who have fallen victims to it, describes, as its *symptoms*, a passion for—1, large-paper copies; 2, uncut copies; 3, illustrated copies; 4, unique copies; 5, vellum copies; 6, first editions; 7, true editions; 8, black-letter editions; and prescribes for its cure—1, reading useful works; 2, reprints of scarce and valuable works; 3, editing our best ancient writers; 4, erecting of public institutions; 5, encouragement of bibliography.

BIBLIOTHECA, *bib-li-o-the'-ka* (Gr., *biblion*, and *theke*, a repository), properly signifies a library, or repository of books. In literature, it denotes a treatise giving an account or list of all the writers on a certain subject: thus, we have bibliothecas of theology, law, philosophy, &c. There are, likewise, universal bibliothecas, which treat indifferently of all kinds of books; also, select bibliothecas, giving an account of none but authors of reputation. (See BIBLIOGRAPHY.)

BICYCLE, *bice'-i-kl* (Gr., *bis*, twice, and *kuklos*, a circle), a locomotive machine with two wheels, introduced about fourteen years since, and since then subject to many improvements. It is a very great improvement on the old velocipede (*see*), being much lighter, swifter in movement, and less injurious to the rider. The front or driving wheel is much larger than the back wheel, sometimes five feet in diameter. The rider is seated on a small saddle, and the motive power is obtained from the feet-working crank treadles attached to the revolving axle of the driving wheel. India rubber tyres on the wheels make the movement easy. As a proof of the speed to be obtained, it is on record that good riders have covered 18 miles in an hour. So little is the fatigue incurred, that a hundred miles a day over fair roads has often been achieved for six or seven days successively. A bicycle of the first class does not weigh above 50 lbs.

BIDPAI, OR PILPAI, FABLES OF.
(See PANTOCHA TANTRA.)

BILLET, *bil'-let* (Fr., *billot*, a block, or small log of wood).—In Architecture, when any moulding, either square or circular in form, but more generally the latter, is divided into short sections, and every other piece then cut away, the remaining projections, which resemble short blocks of wood, are called billets. It is peculiar to Roman architecture.

Billet, *bil'-lai* (Fr., *billet*, a letter), in Heraldry is a charge resembling a brick or letter in its oblong rectangular shape. By English heralds it is considered to represent a letter, and hence the derivation here given; but foreign heralds are inclined to consider it as representing a brick or tile.

BILLIARDS, *bil'-yards* (Fr., *billard*, the stick or mace with which the ball is struck), a game played with ivory balls upon a rectangular table, usually made of slate and covered with fine green cloth. It is supposed that the game was invented in England, and afterwards practised in France. It appears to have been a favourite amusement in Shakespeare's time, for he alludes to it in *Antony and Cleopatra*. The size of a billiard-table varies; but it is generally about 12 feet long, 6 feet broad, and 3 feet high, and is surrounded with "cushions" made of india-rubber, in order to keep the balls on the table and make them rebound. Two of the ivory balls employed are white, and one red. At each corner of the table, and in the centre of each of the longest sides, is an opening provided with a pocket or hazard-net; and the object of the player, in an ordinary game, is either to make a cannon—that is, to hit the other white ball and the red with his own white ball—or to make a hazard—namely, to place his own ball into a pocket, after striking the red or white ball—or to play so as to thrust the red or white ball into a pocket. The former is called a losing hazard, and the latter a winning hazard. The stick or cue with which the balls are struck is a straight wooden rod tipped with leather or india-rubber, between five and six feet long, and tapering towards its smaller extremity. The cue is played over the left hand, on a "bridge" made by the fingers and thumb. The point of the cue is usually chalked before playing, in order to prevent its slipping. Before commencing to play, a fine chalk-line is drawn across the lower end of the table, nearly two feet distance from it. From the centre of this line, a semi-circle is drawn, about one foot and a half in diameter, with the

convex side towards the lower end of the table. The space included between the line and the semi-circle is called the *bauk*, with a spot, from which the first player always begins. In the centre of the table, at the high end, about a foot from the cushion, is a mark, upon which the red ball is placed. The game, which is generally scored by a non-player, or marker, was originally 21; but it is often played to 50, 63, 84, 100, or 1,000. It can be played by two, three, four, or more persons, and there are many varieties of the game; the principal being *billiards proper*, *pool*, and *pyramids*. In the first, three balls are used, two white (one with a spot on it), and one red, each from an inch to an inch and a half in diameter. Pool consists entirely of winning hazards, and may be played by two or more persons, each player staking a certain amount to form the post. Pyramids is also a game of winning hazards, and fifteen balls are used, placed close together in the form of a triangle, with the apex towards the player, and a white striking ball. The player who pockets most balls wins. The game demands from the player, cool nerves, a steady hand, a true appreciation of angles, and a delicate perception of the force exerted in a stroke. In France, the principal game of billiards is played upon a table which has no pockets, and the score is made entirely with cannons. The French game can be played upon ordinary English tables, and then cannons only are reckoned in the score. The rules of billiards are very exact, and are generally hung up in a frame where the game is played. Scores are marked on a specially constructed marking-board, generally by a professional marker.

BINARY MEASURE, in Music, is a measure which is beaten equally, or where the time of rising is equal to that of falling. It is usually called *common time*.

BIOGRAPHY, *bi-og'-ra-fe* (Gr., *bios*, life, and *graphe*, a writing), the history of a life, the name given to that department of literature which treats of the lives of individuals. Biography differs from history in that the former is confined to an account of the actions and fortunes of individuals, while history deals with large communities of men, states, or nations. Of purely biographical works, the most valuable that has come down to us from the Greeks is the "Parallel Lives" of Plutarch, a work of the 2nd century after Christ; "The Lives of the Philosophers," by Diogenes Laertius; "The Lives of Philosophers," by Eunapius; and "The Lives of the Sophists," by Philostratus, are the other principal works of this class in the Greek language. Of single lives, we have a life of Homer, attributed to Herodotus; of Plato, by Olympiodorus of Alexandria; and of Apollonius of Tyana, by Philostratus. The principal biographical works of the Romans are—"The Lives of Eminent Greek and Roman Commanders," by Cornelius Nepos; and "The Lives of the Twelve Cæsars," by Suetonius; the latter being necessarily in some degree historical. Tacitus has also written an admirable life of his father-in-law, Agricola. St. Jerome's "Lives of the Fathers," and almost innumerable lives of saints, martyrs, and eminent ecclesiastics, appeared in the time of the early Church. Of modern biographical works the name is legion. Among the more prominent may be mentioned Vasari's "Lives of the Painters" (1550); Tillemont's "Mémoires pour servir à l'Histoire Ecclésiastique des six premiers

S siècles de l'Eglise," 16 vols. 4to (Paris, 1693, &c.); Stanley's "History of Philosophy," containing the lives, opinions, actions, and discourses of the philosophers of every sect, 4 vols. (London, 1655-62); Bayle's "Dictionnaire Historique et Critique," 2 vols. folio (Rotterdam, 1697); "Biographia Britannica," 5 vols. (London, 1747-66); Johnson's "Lives of the Poets" (1781); "Biographie Universelle," 52 vols. (1810-28); Knight's "English Cyclopædia," Biographical section, 6 vols. (1856-7); and the Biographical section of this Encyclopædia. Of single lives, Boswell's "Life of Johnson" is regarded as one of the best in our language; and among modern biographical works of high repute are Stanley's "Life of Dr. Arnold," Lockhart's "Life of Scott," Mr. Smiles' various biographies, Carlyle's "Life of Frederick the Great," and Forster's "Life of Goldsmith." Recent literature is very rich in good works of this class. In all civilized countries, biography has always formed a favourite subject of study.

BIPENNIS, *bi-pen'-nis*, a double-headed axe, said by legend to have been carried by the Amazons.

BIRD-BOLT, *bird'-bolt*, an old form of arrow, short and thick, without point, spreading at the extremity so much as to leave a broad flat surface, about the breadth of a shilling. It was shot from a cross-bow.

BIRD-CATCHING, the art of taking birds or wild fowl alive. It is performed in a variety of ways, according to the season of the year or the species of bird intended to be caught. Some birds are taken by burning sulphur at night under the trees upon which they have been observed to perch. Pheasants are sometimes caught in this way. If wheat or any other grain, steeped in a mixture of wine-lees and hemlock-juice, be scattered in places where birds resort, they become intoxicated after eating, and are easily taken. Birds are also taken by means of birdlime (which see). The principal methods employed in catching birds, however, are by means of traps and nets. Like everything else, the trapping and catching of birds is a matter of practice, study, and experience. The most primitive form of trap is the common brick-trap, which consists of two bricks placed lengthwise upon their narrow sides, a third across their extremities, and a fourth at the opposite end, so as to form a sort of lid. In the central opening a stout piece of stick is driven, and between this and another similar piece supporting the lid, a forked twig is placed. When the bird alights on one of the forks of the twig, the other two sticks give way, and the lid falls, securing the bird. The next easiest of construction is the sieve-trap. An ordinary sieve is propped up by a slight stick at an angle of about 45 degrees: some seeds or crumbs of bread are strewn under the sieve, and a string attached to the supporting stick is held by the birdcatcher, who remains concealed at a short distance. When the birds gather round the food, the string is pulled, the sieve falls, and the birds are caught. The next bird-catching machine, the springle, is more difficult to construct. At the smaller end of a hazel switch four feet long, which is called the spring, a piece of string about fifteen inches long is tied. Nearly at the end of this string, the catch, which is a little piece of wood half an inch long, about half as broad, and one quarter as thick, is fastened. A small piece of the wood is shaved off one side of this catch, in order to adapt

it for a notch in another part of the springle; a loose slip-knot made of two long stout horsehairs is then fastened to the end of the string below the catch. A smaller switch, about a foot and a half in length, is bent back at the smaller end, and fastened within an inch or so of the thicker end, in which a notch is cut, in order to receive the end of the catch: this is called the spread. A stump and a bender, which is another pliant bit of switch, each a foot and a half in length, complete the springle. When the bird alights on the spread, it falls with its weight, the catch is released, the springer flies up, and the bird is caught by the neck, wings, body, or legs, in the horsehair slip-knot. A number of birds are caught by horsehair loops which are fastened to a long string, which is laid in a series of rings winding outward from the centre, so that the space of ground is covered with them. When disposed in a place where birds resort, it generally occurs that if a bird gets his foot into a loop, he draws it tightly round his leg, and is thus caught. Another mode of catching birds is by what is called "bat-fowling" and "bush-beating." The methods described above are employed by daylight, and with the assistance of decoy-birds, which, trained for the purpose, are placed in cages, about six or eight yards apart, and covered with branches to hide them. Their call-note allures the wild birds. Bat-fowling is pursued at night-time, some two or three hours after the birds have gone to roost. A large net is mounted on two long poles, which are carried by two persons. Some of those engaged in the sport walk in front of the net, beating the bushes, ivy, &c. Others walk behind the net, carrying a dim light in a bull's-eye lantern. The birds being disturbed, fly out naturally towards the light, and, in so doing, fly against the net, which is quickly doubled over, and they are caught. In the Orkney and Faroe Islands, eggs and young birds are collected by the inhabitants in a most daring and hazardous manner, climbing up rocky precipices, and sometimes being suspended by ropes, over the verge of cliffs many hundred feet high. In Mexico and China, empty gourds are left floating in the inland lakes where aquatic birds resort. The bird-catcher enters the lake with his body under water, and his head covered with a gourd. He quietly approaches the birds as they are swimming, and pulls them under water. In many parts of Russia, the gellinotte, or grouse, is taken in large quantities by means of an ingenious trap, made of birch twigs in a conical shape, with a movable wheel at the top. In Italy, the wild pigeons, on their return from the northern and western parts of Europe, are caught by means of nets, which are stretched across the hollows of the mountains through which the birds direct their course.

BIRD'S-EYE VIEW. The representation of a building, town, or any tract of country, as if seen from a considerable height immediately above it. The method of presenting a bird's-eye view of any place, in the common acceptance of the term, is to fix the horizontal line containing the point of sight (see **PERSPECTIVE**) considerably above the drawing, which renders it nothing more than a common perspective view, which is seen under circumstances which can scarcely be considered natural. The view so obtained is that which would be seen by a spectator standing on the top of a very high tower or mountain, and looking directly before him.

BIRD'S-MOUTH, in Architecture, a small

angle entering into any moulding, or a notch cut in the end of a piece of timber, to allow it to fit and rest upon the edge of another piece bearing on the upper surface, and on one side, as rafters are sometimes cut to bear on the wall-plate.

BIRKBECK INSTITUTE, *birk'-bek*, the name now given to the London Mechanics' Institute, in Southampton Buildings, Chancery Lane, London, founded by Dr. Birkbeck and some friends in 1827. It was the first institute of the kind in the kingdom. (See **MECHANICS**, and **LITERARY AND SCIENTIFIC INSTITUTES**.)

BIRTHDAY, *birth'-day*, literally the day on which any one is born; but more generally used to designate the anniversary of that day. It corresponds with what the ancient Greeks called *genethlion* and the Romans *natalitius dies*. Many of the ceremonies connected with the religion of the ancients were celebrated on birthdays; and the omens by which they estimated the felicity of the coming year were also taken on the same days. The birthdays of gods, emperors, poets, and great and illustrious men, were celebrated with great pomp and splendour. The mode of celebrating these days was by wearing a splendid dress, and putting on rings, only worn on these occasions. The men offered up sacrifices of frankincense and wine to their genius, and the women to Juno. Costly suppers were also provided, and treats given to their friends and clients, who, in return, made them presents, and offered vows and good wishes for the many happy returns of the same day. The birthday of Virgil was held with great ceremony by the wits and poets who succeeded him: Pliny states that Silius kept it with more solemnity than he did his own. The inhabitants of Rome and Constantinople celebrated the birthdays of their respective cities with great pomp and magnificence. The birthdays of emperors were commemorated with public sports, feasts, vows, and medals struck for the occasion. But the ancients had other sorts of birthdays than the days on which they were born; indeed, the word *natalis* among the Romans was extended to all feasts. Amongst the ancients, the day of their adoption was always considered as a birthday, and celebrated accordingly. Three birthdays were observed by the Emperor Adrian—the day of his nativity, the day of his adoption, and the day of his inauguration. It was generally considered, in those times, that when men arrived at the highest honours in the State, they were born again; and the day was thenceforth celebrated as a birthday. In modern times the birthdays of royal personages are celebrated by the presentation of addresses, firing of salutes, ringing of bells, and other demonstrations. In this country it has become the fashion to appoint another day instead of the actual birthday for receptions, reviews, presentations, and other formalities. Socially, birthdays are affectionately remembered and made the occasion of presents and pleasant greetings.

Birthday Books.—Recently books of this character, partaking of the character of albums, have come into great favour. For each day of the year there is a space for the inscription of the name of a relative or friend, with appropriate texts of Scripture, or quotations from poetical works, generally two to each name, one suited to a male, the other to a female. In some instances, one author only is quoted, as in the Shakespeare, or Bunyan, Birthday Book.

BIS, bis (Latin, twice or double), the Latin

root of the prefix *bi* or *bin*. In Music, a term which implies that the bar or bars included with it in the same curve (drawn under or over the notes) are to be sung or played twice before the performer proceeds to the succeeding bar or bars.

BISMILLAH, *bis-mil'-la* (Arab.), a solemn phrase made use of by the Mahometans at the commencement of all their books, &c. It signifies "in the name of the most merciful God."

BIVOUC, *biv'-oo-ak* (Ger., *beiwachen* or *bewachen*, to watch over), a term formerly applied to videttes of cavalry thrown out as outposts to watch the movements of the hostile force, and to prevent any attempt at a night attack. From the circumstance of these videttes passing the night in the open air without any protection, the word was at last taken to signify the state of an army passing the night on the field without tents or any kind of shelter. When troops are in a bivouac, rows of large fires are lighted at intervals, round which the men group themselves, after piling their arms. These fires are kept up through the night, and the country around is searched for straw on which the soldiers lie, after contriving some temporary shelter of boughs or boards, if they can be procured, to keep off wind and rain.

BIZARRE, *be-zar'* (Lat., *bis*, twice, and *variare*, to vary), is a term derived from the French, and signifying odd, capricious, or fanciful. A person is said to be *bizarre* when his character, tastes, or opinions are incessantly changing and differing from those of other men, and who is characterized by attempting always to say and do what is singular. Bizarre is also applied to something that is extraordinary or singular, notably in the sense of grotesque. The term is also applied by florists to a carnation with a white ground, marked with two or more colours. (See **DIANTHUS**.)

BLACK, *blak* (Sax., *blac*). The total absorption of all the rays of light constitutes black. (See **COLOURS**, **LIGHT**.) Amongst the mediæval illuminators, black signified evil, error, and woe; and the figures in their paintings are represented in black drapery when any of these subjects are portrayed. Thus, in the picture of the Temptation, Christ is represented in black robes. In heraldry, black, or sable, is symbolical of wisdom or prudence. From very ancient times, black has been worn as the emblem of mourning. In some of the Oriental countries, black is looked upon as a badge of servitude or low birth. The principal black pigments used in the arts are generally composed of carbon. They are vegetable blue-black, ivory-black, cork-black, and lamp-black.

BLACKGUARD, *blag'-ard*, was a name originally given to the scullions and coal-carriers in great houses and palaces. In the journeys of the families to which they belonged, they usually rode in the carts with the pots and kettles; and people in derision gave them the name of blackguards. The term is now usually applied to a coarse, low fellow.

BLACK-JACK, an old-fashioned term for a drinking-cup of tin japanned over, formerly much used in England.

BLACK LETTER is the name commonly given in this country to the old English or modern Gothic letter (Black). What are called Roman letters were employed in the writings of

Western Europe from the 5th to about the close of the 12th century, when the Gothic characters came to be adopted. When printing was first introduced, the object was to imitate writing; and the first printed books were disposed of as manuscripts, the imitation being so perfect that it required great discrimination to distinguish the printed from the written. Books printed before the year 1500 are generally in the black-letter characters, but after, in most European countries, they came to be superseded by the Roman. The old Gothic is still in general use in Germany, but now many books are printed there also in Roman characters. Books in the black letter are highly prized by antiquaries and bibliomaniacs, as being the earliest. Lawyers especially learned in old law are often spoken of as "black-letter lawyers."

BLACKSTONE'S COMMENTARIES.

In 1758, Sir William Blackstone, a lawyer of considerable eminence was appointed Vinerian Professor of common law at Oxford, and in that capacity delivered a course of lectures, afterwards collected and published with the title of "Commentaries on the Laws of England." There are four leading divisions of the book—rights of persons and rights of things, and public and private wrongs. The work is now not much valued by professional lawyers; but has been the most generally popular of law books, owing to the clearness and grace of style, and the literary power of exposition and illustration displayed. He asserted that the laws of nature, otherwise the laws of God, were the only sanction of civil law—"no human laws are of any validity if contrary to this." The method followed in the work was, with little alteration, that of Sir Matthew Hale's "Analysis of the English Law." Soon after the publication of the book a vigorous controversy arose as to its merits; and that controversy has been continued to later times. Lord Mansfield spoke highly of the work as a book proper for the perusal of the student. Charles J. Fox, thought "his style of English the very best among our modern writers." Mr. Marvin, a modern writer of great repute, says, "probably there is not a treatise mentioned in the whole bibliography of the common law about which a greater contrariety of opinion has been excited than of Blackstone's Commentaries." Mr. Austin, who ranks among the foremost thinkers and writers on subjects of jurisprudence, speaks of "the too-celebrated Commentaries," and says, "neither in the general conception, nor in the detail of his book is there a single particle of original and discriminating thought. He had read somewhat (though far less than is commonly believed), but he had swallowed the matter of his reading without choice and without remuneration." Jeremy Bentham, in his "Fragment on Government," expresses an opinion that Blackstone is "the first of all institutional writers who has taught jurisprudence to speak the language of the scholar and the gentleman; put a polish upon the rugged science; cleansed her from the dust and cobwebs of the office; and, if he has not enriched her with that precision which is drawn only from the sterling treasury of the science, has decked her out, however, from the toilet of classical erudition; enlivened her with metaphors and allusions; and sent her abroad in some measure to instruct and in still greater measure to entertain, the most miscellaneous and even the most fastidious societies."

BLACKWOOD'S MAGAZINE.—About 1816, Mr. Thomas Pringle, a young Scotchman with literary tastes, started a publication to which he gave the name *The Edinburgh Monthly Magazine*. Among the contributors were Lockhart, Brewster, Hogg, and Wilson; and Walter Scott supplied an article on the Gipsies to the first number. Pringle appears to have been unable to continue the Magazine, and shortly afterwards it passed into the hands of Messrs. Blackwood, the publishers, who changed the title to that which it now bears, *Blackwood's Magazine*, the first number of which appeared in 1817. Pringle went to the Cape of Good Hope, and, mainly by the influence of Scott, obtained the appointment of librarian to the Government at Cape Town. He wrote a "Narrative of a Residence in South Africa," and another book on a colonial subject, and started a newspaper, *The South African Journal*. Under the management of Mr. Blackwood, the Magazine at once achieved great influence and popularity. Its political articles, always able, generally very vituperative, made it one of the foremost organs of the old-fashioned Tory party. Its slashing and not very scrupulous advocacy and its reckless personalities were notable even in those days of savage political polemics and hard-hitting. As "Maga," (a contraction of "Magazine"), or as "Old Ebony" (a play on the name of the publisher), the publication was prominent in the foremost rank of the periodical literature of the time; and the great ability of the contributors maintained its reputation. Pugilism was a fashionable amusement, and political writers, like the prize-fighters, hit as hard as they could, and delighted to pound an opponent to a literary jelly. Neither writers nor readers were squeamish in those days. No other magazine, probably, has ever been aided by so many contributors of the highest ability as regular members of the literary staff. Wilson (who under his favourite signature, "Christopher North," contributed the wonderful *Noctes Ambrosianæ*, and several subsequent series of articles, almost, if not quite, the last being "Christopher under Canvas"), was for a long time the editor, and for more than thirty years an active contributor. Lockhart, Samuel Warren, De Quincey, Moir (the poetical "Delta"), Aytoun (for several years editor), Bulwer Lytton, Lever, "George Eliot," Mrs. Oliphant, Theodore Martin, are a few only of the distinguished writers who contributed regularly to the magazine; and notwithstanding the competition of high class publications of great ability which have appeared of late years with dazzling lists of contributors, and published at a lower price, "Old Ebony" is able to hold its own against all comers, retaining its old-fashioned form and appearance, with the head of the old Scotch scholar, George Buchanan, on the wrapper, and not condescending to alteration of page, or the announcement of "a new series."

BLANK VERSE, is verse without rhyme—verse where, according to Dr. Johnson, "the rhyme is blanched or missed"—and dependent for its music on metre alone. The verse of the Greeks and Romans—at least all of it that has come down to us, is without rhyme. The Goths are said to have introduced rhyme from the East into the languages of modern Europe, and in the Middle Ages it came to be commonly employed in poetical composition, both in the Latin and vernacular tongues, by most of the nations of Europe. About the 15th century, when the

passion for imitating classical models became general, attempts were made in Italy, France, and other countries, to reject rhyme as a barbarous innovation. The first attempt at blank verse in English appears to have been a translation of the first and fourth books of the *Æneid* by the earl of Surrey, who was executed in 1547. Blank verse was much improved by Marlowe, and its suitability for the drama was at once felt, and it was in general use in dramatic composition before Shakespeare began to write, which is supposed to have been about 1591. It was, however, almost entirely confined to the drama down to the appearance of "Paradise Lost," by Milton, in 1667. In an advertisement to the second edition of this work, the author, in answering objections to the want of rhyme, says: "This neglect of rhyme is so little to be taken for a defect, though it may seem so, perhaps, to vulgar readers, that it is rather to be esteemed an example, set the first in English, of ancient liberty recovered to heroic poem from the troublesome and modern bondage of rhyming." Dryden, a young man in Milton's lifetime, thought it would be an improvement to change some of the great poet's works into rhymed poetry, and asked for permission to do so. Milton contemptuously replied "The young man may tag my verses if he likes,"—that is, reduce them to the level of the "tags," or rhymed endings in vogue as the final words of the comedies of the period. Since Milton's time, blank verse has come into use in various kinds of poetry besides the dramatic; but it is principally in the heroic metre of ten syllables that blank verse is used, and, indeed, by some the term is restricted to that kind of metre. Strictly, blank and unrhymed verse might be considered as identical; and if so, poems written in hexameters, without rhyme, such as Longfellow's "Evangeline," or such unusual form as that adopted by the same writer in "Hiawatha," might be ranked as blank verse. But it is better, perhaps, to adhere to the popular definition. A line of blank verse, then, consists of ten syllables (or five iambic feet) with an accented following an accented syllable, and short and long syllables similarly alternating. This would frequently lead to monotony, were it not for the opportunity of variety afforded by changing the place of the cæsure, or pause in the line, by which a great effect is occasionally produced. Tom Hood, in his useful little book, "The Rules of Rhyme," says, "The length of the line enables us distinctly to trace in it both accent and pause; and it is upon frequent changes in the seats of these that the varied harmony of the heroic measure depends. The general accentuation falls on the long syllables, the sense, however, always directing the reader to accent some single syllable specially in each line. The pause uniformly follows the syllable or word so accented specially, unless that syllable be the first part of a long word, or be followed by short monosyllables." The cæsure (division) or pause in the line, occurs most frequently after the second, fourth, fifth and sixth syllables, but is sometimes shifted to the third and the seventh, very rarely indeed to the fourth or eighth. An illustration of the effect produced by this variety may be taken from one of Shakespeare's best known passages: "The quality of mercy | is not strained, . . . 7th syll. It droppeth | as the gentle rain from heaven 3rd ,, Upon the place beneath. | It is twice bless'd: 6th ,, It blesseth him that gives | and him that takes." 6th ,, The effect of placing the pause after the first

syllable (very unusual) is shown in other well-known lines by Shakespeare.

"Sweet | are the uses of adversity, 1st syll.
Which, like a toad, | ugly and venomous, . . . 4th "
Wears yet a precious jewel | in his head." . . . 7th "

John Keats, whose blank verse is worthy to be ranked with that of Shakespeare, affords a noble instance of this variety in the opening lines of "Hyperion," as pointed out by Mr. Hood:

"As when | upon a tranced summer night, . . . 2nd syll.
Those green-robed senators | of mighty woods, 6th "
Tall oaks | branch-charmed by the earnest stars, 2nd "
Dream, | and so dream all night without a stir." 1st "

The wonderful variety of cadence, the wedding of the music of the metre to the beauty of the language, in these quotations, must be apparent; and the result is very different indeed from that obtained by merely cutting up written matter into ten-syllable lengths and calling it blank verse, simply because it is unrhymed. The freedom from the stanza form enjoyed by blank verse, and from the incumbrance of rhyme to which the heroic couplet, or rhymed lines of ten syllables, is subject, permits an expansion of idea and an accumulation of illustrative and effective repetition which no other form of metrical composition affords. Shakespeare's description of Cleopatra in her state-barge is a well-known instance; and in Wordsworth (one of the greatest modern masters of blank verse) there are many passages similar to this:

"I have felt

A presence that disturbs me with the joy
Of elevated thoughts; a sense sublime
Of something far more deeply interfused,
Whose dwelling is the light of setting suns,
And the round ocean and the living air,
And the blue sky, and in the mind of man."

A permissible variety is the introduction of an occasional line of eleven syllables, of which there are numerous instances in Shakespeare and other great writers of blank verse. A very familiar line is Hamlet's "To be or not to be, that is the ques—tion." Almost every great poet has a music of his own, depending on his mastery over the varieties of cadence. A foreigner with a sensitive ear would be able to distinguish a difference between the blank verse of Milton and Tennyson, for instance, if well read, although he might be unacquainted with the language. Some of the greatest masters of other forms of metrical composition have, comparatively, failed in blank verse—among them Byron, whose attempts at blank verse were frequently prosaic indeed, especially in his dramas. In a criticism of "Werner," Campbell says, "If the measure of verse which is here dealt to us be a sample of what we are to expect for the future, we have only to entreat that Lord Byron will drop the ceremony of cutting up his prose into lines of ten, eleven, or twelve syllables (for he is not very punctilious on this head), and favour us with it in its natural state. It requires no very cunning alchemy to transmute his verse into prose, nor, reversing the experiment, to convert his plain sentences into verses like his own." Campbell then quotes an extract from Byron's preface to the play, cut up into ten syllable lines, and adds, "Nor is there a line in these so lame and halting, but we could point out many in the drama as bad." Byron, however, produced better blank in his "Dream," "The Lament of Tasso," and some other poems, where his imagination and powerful emotion infused more life into the lines. The German language lends itself readily to

blank verse; in French and Italian the employment of it is almost impossible, although in the former some translators of Shakespeare have ingeniously, but with great difficulty, approached it.

BLAZONRY, *blai'-zon-re* (Ger., *blasen*, to blow, as with a horn, Fr., *blasonner*, to blaze about, make public), the art of describing armorial bearings in heraldic phraseology. The term originated in the custom of sounding a trumpet when a knight entered the lists at a tournament after which the officiating heralds proclaimed his title, and the distinctive bearings on his shield, with his crest, badge, and motto. The principal rules for blazoning coats-of-arms, according to English usage, are as follows; but on the Continent they are not all observed with strict adherence. 1. In marshalling coats-of-arms it is false heraldry to place metal upon metal, or colour upon colour. 2. Begin with mentioning the metal or colour of which the field is composed, stating the direction of the lines by which it may happen to be divided: as, *per bend, per fess, quarterly*, &c., and if they assume other forms than the simple straight lines, and then proceed to the principal and secondary charges in order. 3. Shorten the description as much as possible, and avoid all repetition of the names of metals and colours, mentioning a charge of any colour or metal that has been named before, as *of the first, of the second*, &c. In describing charges in a field or on an ordinary, between others of a different nature, always name that charge first which is nearest to the centre of the shield. 5. When animals, plants, &c., are represented in their natural colours, they must be always described as *proper* only, without naming any metal or colour; thus we must say a swan proper, not a swan argent.

BLIND, EDUCATION OF THE.—The first school established for this purpose was at Paris in 1784. It was followed by those of Liverpool, Edinburgh, and London, established 1790, 1791, and 1800, respectively. Since that time schools have been established in most of the large cities and towns of the kingdom. M. Valentine Hoüy was the inventor of the art of printing in relief. He printed on paper letters recognisable to the touch, from flat movable types of the script or italic form of the Roman characters; but various attempts had been made before his time to give them a knowledge of letters. He also founded the Institut des Jeunes Aveugles. The French system of M. Hoüy was subsequently much improved by Mr. James Gall, of Edinburgh, who employed only one alphabet in place of two (capitals and small letters), and excluded curves and circles, substituting angles and straight lines. He published several preparatory books in this style for the use of the blind. Among others, The Gospel by St. John which was the first book of the Bible ever printed for the blind. Perhaps his most important improvement was the use of serrated types by which the letters were semi-punctured as well as embossed on the paper, by this means also an ordinary press could print the sheets with half the pressure and in half the time, thus enabling books for the blind to be produced much more cheaply than previously. In 1832, the Society of Arts in Scotland offered their gold medal for the best alphabet and method of printing for the use of the blind, which was awarded to Dr. Fry. Mr. Alston, of Glasgow, subsequently made various

improvements upon Dr. Fry's system, so as to render the letters sharper and more tangible. Lucas, Frere, Moon, Braille, and others had also invented or modified systems. The whole Bible was printed at Glasgow in raised Roman characters, about the year 1848, and a sixpenny magazine for the blind, edited by the late Rev. W. Taylor, F.R.S., so eminent in his forty years' exertions on behalf of these sufferers, was published in 1855-6. This gentleman also aided the establishment of a college for the blind of the upper classes at Worcester, in 1866. The systems at present in use may be divided into two classes—the alphabetical and the arbitrary. The alphabetical comprise—1, Alston's system of Roman capitals; 2, the American system of smaller capitals, with serrated edges (a modification of Gall's system); 3, the French alphabetical; and 4, Alston's modified by Welch. The arbitrary systems are—1, Lucas's; 2, Frere's; 3, Moon's; 4, le Système Braille; and 5, le Système Carton. There is also Macbeath and Miln's "string alphabet." Each of these systems has its advocates and adherents. Books are printed in them; and, as few blind persons ever master more than one system, the books of every other system are unintelligible to them. Alston's system seems to meet with most favour, being easily learned and most nearly allied to ordinary letters. The ordinary Roman letters are used in such a form as to be most easily felt. The Americans adopt a smaller type, which renders their books more difficult to read, though it lessens the cost. In what are called the arbitrary systems, in place of the ordinary letters of the alphabet, arbitrary characters are adopted. The first introduced of these is the system of Mr. M. T. Lucas, which professes to be to a blind person what stenography is to a seeing person. His alphabet is composed of thirty-six characters, ten of which represent double letters. Not only are all letters omitted that are not necessary to the sound, but in many cases single letters stand for words; as *t* for the; *y*, yet; *m*, me; *b*, by, &c. The advantage claimed for this system is the saving of types, paper, and labour in the printing of books; but this is found not to be the case, for the characters occupy more space than if the words were all written at full length in Roman capitals; while it must be much more difficult to master, and must give rise to frequent confusion. The system of Frere is also stenographic, founded on Gurney's shorthand, as that of Lucas was on Byrom's. Its distinctive feature, as compared with Lucas's, is that it is phonetic, the characters being intended to represent the simple sounds of the English language, rather than the letters; and each word is represented according to its pronunciation. The alphabet is composed of thirty-two characters, to each of which is attached a short description intended to fix more strongly in the memory of the learner the force of the character. The vowels are represented by simple dots, which, in different positions, represent the different vowels, and are divided into five long and five short. There are also twelve rules in verse for teaching the learner how to supply the omitted vowels correctly. In Mr. Moon's system, the alphabet consists of "the common letters simplified;" in other words, six of the Roman letters remain unaltered; twelve others have parts left out, so as to be open to the touch; the rest are new and simple forms. It will be found, however, on examination, that the resemblance

between Mr. Moon's letters and the Roman capitals is by no means so great as one might expect from his statement. "A letter," he says, "must consist of only one or two lines, to be felt by the thick finger of an adult." The words are all spelt at full length. Braille's system, which is universal in France, both for writing and printing and also extensively used in Switzerland, was invented in 1834 by M. Braille, a blind pupil of L'Institute des Jeunes Aveugles. Its signs are quite arbitrary and consists of combinations of dots, but though extremely useful it is by no means perfect, as the signs are too small for ready recognition by hard-fingered persons. This system has recently been much improved by Wait of New York. Carton's system is used chiefly in Belgium and likewise consists of dots. An ingenious "string alphabet," for enabling the blind to read and write or correspond with each other, was invented some time ago by David Macbeath and Robert Milne, two inmates of the Edinburgh Asylum, and has been found to answer its purpose remarkably well. The different letters of the alphabet are represented by different kinds and combinations of knots on a cord. They are distributed into seven classes, each class comprehending four letters, except the last, which has only two. The first, or A class, is distinguished by a large round knot; the second, or E class, by a knot projecting from the line; the third, or I class, by a series of links, vulgarly called "the drummer's plait;" the fourth, or M class, by a simple noose; the fifth, or Q class, by a noose with a line drawn through it; the sixth, or U class, by a noose with a net-knot cast on it; and the seventh, or Y class, by a twisted noose. The first letter of each class is denoted by the simple characteristic of that class; the second, by the characteristic and a common knot close to it; the third, by the characteristic and a common knot half an inch from it; and the fourth, by the characteristic and a common knot an inch from it. It is impossible to assert which of these systems will ultimately prevail, as their respective advocates maintain their claims with great determination and tenacity. There are many, however, who confidently predict that Wait's improved Braille system will before very long become universal, as it also provides a most legible writing for the blind. The mode of teaching the blind music by means of raised notes is now little practised, it being found, from their great strength of memory, that they are able to learn very long pieces by means of the ear alone. Embossed maps and globes are employed for teaching them geography; and in addition to raised maps of the heavens, various ingenious contrivances have been resorted to for making them acquainted with different branches of astronomical knowledge. Arithmetic is taught by embossed types dropped into holes in a perforated board, by angular pins in angular holes, or by common pins stuck into a cushion, lines being represented by thin twine stretched across. The blind may be taught mathematics by means of a board full of small holes, with a few pins fitted to them, so as to represent certain letters; while, with a cord extended from the different points, are formed the lines of the figure or diagram. The success of Saunderson, Moyes, and others, sufficiently proves that blindness is no great impediment to a knowledge of mathematics; indeed, according to some, the blind possess great advantages. In the various educational establishments for the blind,

they are instructed in sundry manual occupations, as in the making of baskets, mats, rugs, shoes, and such-like.

Writing for the Blind is of two kinds—one to be read by the seeing, and one to be read by the blind. The string alphabet mentioned above is sometimes used, but it is now superseded by Gall's Typhlograph, a very complete instrument which enables a blind person to imitate any style or size of writing. It consists of a thin brass guide which slides freely between two wooden rules united at each end. In the brass guide, a hole of a somewhat oval shape is cut, having a small projection on the right hand side which enables the writer to know when he has completed a letter such as O. St. Claire's system consists of a guide containing a number of square holes through which the pencil works to make square capitals. Braille's writing system is very similar to his reading, but the best of all is the new American type-writer, which is equally well adapted to the blind or the seeing by which an expert manipulator can write twice as fast as a penman.

Institutions for the Blind. There are now about 150 institutions for the instruction of the blind in the world, the great majority of which have only recently been opened. The first asylum was founded by Louis IX. at Paris, in 1200, for the reception of soldiers who had lost their sight in the Crusades. In 1781, Simpson's Hospital for the blind was opened in Dublin. The first school was opened by Hoty, in Paris, in 1784, and after that date others speedily arose. All the principal towns in the kingdom have now similar institutions, in addition to which there are, The College for the Blind Sons of Gentlemen, Worcester, and The Royal Normal College and Academy of Music for the Blind, Upper Norwood. The work of the British and Foreign Blind Associations has also, of late years, given great impetus to the higher education of the blind, and the improvement of their position.

BLINDAGE, *blind-aj* (Sax., *blind*), any temporary construction to secure soldiers from the fire or the observation of an enemy. It consists principally of beams of timber, against which fascines are piled, which are covered with earth, turf, and raw hides. When a fort is besieged, and it happens to be without casemates for the protection of the soldiers, covered sheds of this kind are sometimes made, which serve them for a retreat, and a secure place in which they may lodge their provisions and ammunition. Artillerymen working guns on the ramparts are protected from ricochet and vertical fire by blindages, made by fixing palisades on either side of every gun, and forming a thick roof above it with the materials above-named: the blindage is open to the rear, and the gun can be worked through the embrasure without hindrance. Soldiers in the trenches, engaged in making the approaches to a besieged fort, and exposed to a heavy fire from the ramparts, are protected by placing a blindage over the trench, constructed by frames of timber, rising perpendicularly from the sides of the trench which support a roof made in the usual way.

BLINDSTORY, a common term for the triforium, i.e., the middle or second arcade in the wall which separates the aisles from the body of the church. It has doubtless received this name as being opposed to the clearstory, or clerestory, the third arcade, which admits light into the church. (*See also* TRIFORIUM.)

BLOCK-BATTERY in the military art denotes a wooden battery on four wheels, movable from place to place, whereby to fire *en barbe*, or over the parapet. The term is sometimes used in galleries and casemates.

BLOCK-BRUSH, in Heraldry, a bunch of kneeholm, or bastard myrtle, formerly used by

butchers to clean their blocks. It forms a part of the armorial bearings of the Butchers' company.

BLOCK-CARRIAGE, in Artillery, is a carriage used for the conveyance of mortars and their beds from one place to another.

BLOCKHOUSE, *blok'-hous*, a work of defence, formed principally, as the name implies, of logs of timber. It may be built by itself, in which case it may be looked on as a small independent fort; or it may be situated in the interior of field-works, when it becomes a retrenchment, used for the same purposes as erections of a somewhat similar nature called blindages. (*See* BLINDAGE.) The blockhouse is generally built in countries where there is plenty of timber, and in situations where light artillery cannot be brought to bear directly upon it. It is for the most part of one storey only and rectangular in form. At the angles of the blockhouse, to which the sides are attached, formed of horizontal logs strongly fastened together, and pierced at a convenient height with loopholes, from which a fire of musketry can be kept up against assailants. It is generally surrounded with a ditch, the earth taken from which is piled against the lower part of the building, and also used to form the roof. The American backwoodsmen and trappers have found these log-forts of great service in their conflicts with the Indians; and they are very skilful in constructing them. Sometimes the blockhouse, which, in its simplest form, is about eighteen or twenty feet square, assumes a more important character, and is erected for the purpose of resisting artillery. In this case it is built with re-entering angles, which permit a flanking fire of musketry to be kept up to defend the sides of the work, and the walls are made of a double row of upright timbers about two or three feet apart, with the intervening space filled with earth.

BLOCK-SHIP, an old ship which, having become useless as a sea-going craft, has been utilized as a defence for great ports or arsenals. The many and rapid improvements that have taken place in naval architecture have caused a large number of English war-vessels to be unavailable otherwise than as block-ships.

BLOOM, is the term applied to the beautiful soft down on ripe fruit; or to the blossom of a flower; and in painting it is applied to an appearance upon pictures resembling the bloom upon the peach or plum; whence the name. It very much mars the appearance of the picture, and is probably due to moisture in the varnish used in the painting. It may be got rid of by hot camphine being sponged over the surface of the work, afterwards placing the painting in the sunshine to dry. To prevent this "bloom" on a picture, the painting should be carefully dried before applying the varnish, which also should be heated.

BLOOMERISM, *bloom'-er-ism*. In the year 1849, Mrs. Ann Bloomer, a lady who had been an active promoter of the "Women's Rights Movement" in America, appeared in New York dressed in a novel and fanciful costume. It partly resembled the male attire, and consisted of a jacket with loose sleeves, a skirt which descended a little below the knee, and a pair of Turkish trousers. (*See* COSTUME.)

BLOUSE, *blous*, (Fr.), a loose sack-like frock, made of coarse partially bleached linen, and worn

as an over-garment by workmen and peasants in France. The piece of attire called in England the "smock-frock" bears a close resemblance to the blouse. It is principally worn by farm-labourers. The butchers of England, the south of Scotland, France, and Germany, all wear the blue blouse; France, however, is the country where it is most universally worn, as, indeed, France is the country where it was first adopted; for it is nothing else than a modification of the *sayon* of the Gauls. Under the empire of the first Napoleon, the rural and citizen militia wore the blouse. The French workmen wear it of different colours, but a white blouse is always put on as Sunday dress.

BLOWPIPE AND ARROW, a straight tube from 8 to 12 feet long, in which a small poisoned arrow is placed and forcibly expelled by the breath. The weapon is largely used by the South American Indians, and in their hands it is very deadly. The tube usually consists of a reed or small palm with the pith hollowed out, and the arrows have the soft down of the cotton plant twisted round the lower end, so as to exactly fit the bore of the tube.

BLUE, *blou* (Sax., *bleo*; Ger., *blau*), one of the primary colours. (See COLOUR.) A great variety of blue pigments are used in the arts: they are obtained from both mineral and vegetable sources (see below). The Covenanters, in Scotland, chose blue for their colour, in contrast to the red of the king's troopers; and at the battle of Bothwell-bridge their standard had a deep edging of blue. From that time blue was adopted by the Whigs as the distinctive colour of their party: hence the term "true blue." After the landing of William III., orange, or buff, was added to the blue, in compliment to the house of Hanover; and these two colours have been retained by the liberal party ever since. The cover of the "Edinburgh Review," and the banners at contested elections, are examples of this party feeling.

BLUEBEARD, *blou'-beerd*, is the name of a well-known nursery tale, probably founded on old French fiction. It is said that the historic original of Bluebeard was a certain Giles de Leval, Lord of Riaz, who was made Marshall of France in 1429. He was brave, but most atrociously cruel and wicked. He is said to have taken delight in corrupting young persons of both sexes, and then murdering them for their blood, which he used in his incantations. He was burnt alive near Nantes in 1440, on the accusation of being guilty of a crime against the state.

BLUE MANTLE, the heraldic title of one of the pursuivants-at-arms attached to the Herald's College. (See PURSUIVANT.)

BLUE STOCKING, a name given to a female who gives herself up to learning and literature, to the neglect of her womanly duties, and makes a show of her acquirements in a pedantic manner. The name originated in London about 1780. It was much the fashion at that time for ladies to have evening assemblies, where they might mingle in conversation with literary and other distinguished men. An eminent member of these societies was a Mr. Stillingfleet, who always wore blue stockings; and such was the excellence of his conversation that, when absent, the ladies were wont to say, "We can do nothing without the blue stockings."

Hence these societies came to be called Blue-Stocking Clubs.

BLUNDERBUSS, *blun'-der-bus* (Ang.-Sax., *blunder*, and Du., *bus*, a tube), a short fire-arm of large calibre, widening towards the muzzle, adapted for discharging many bullets at once, so that, without any exact aim, there is a chance of one or more of the bullets hitting the mark.

BOARDING, *bord'-ing*, an expression applied to the attempt to carry an enemy's vessel by assault. It was of frequent occurrence during the war with France, in the early part of the present century. After the cannonade and fire of musketry had continued for some time, and the contending vessels had drifted closely together, in the course of the action, an opportunity is sought to attach the ships together by means of grappling-irons. A party of seamen and marines, already told off for the purpose, spring on board the enemy's ship, and a furious hand-to-hand encounter takes place, with cutlasses, pistols, and pikes, which is speedily terminated by the success or repulse of the attacking party. As the French soldiery dreaded to cross bayonets with the English troops during the Peninsular war, and turned as soon as they were near enough to see the eyes of the approaching human avalanche, so the French sailors could seldom withstand the irresistible rush and hearty cheering of the British as they swept the decks of their paralyzed defenders, and drove them pell-mell below. Boarding was generally adopted by privateers in the capture of merchant vessels. Powder flasks which by their explosion would produce smoke and confusion, and shells called "stink pots" for producing an intolerable stench were often thrown on the enemy's deck just before the attacking party jumped aboard. The recent very great alterations in the construction of war vessels have caused an entire change in naval warfare and tactics to take place; and as low iron ships, in which the men who navigate the vessel and work the guns are out of sight, will now take the place of wooden ones in our own navy, as well as in the navies of all maritime powers, it is manifest that boarding can never again be put into such practice as heretofore, but that it must be numbered among the traditions of past times.

BOARDING-PIKE, a weapon formed of an iron spike fixed on an ashen staff, used by sailors in boarding an enemy's ship. It is frequently called a *half-pike*, from its having a much shorter staff than the whole pike.

BOAR'S HEAD, in our ancient customs, was the first dish on Christmas-day, and was carried up to the principal table in the hall with great state and solemnity. (See CHRISTMAS.) A carol (printed by Wynkin de Worde in 1521) which was sung on this occasion was as follows:

"The bore's head in hande bring I
With garlandes gay and rosemary;
I pray you all synge merily,
Qui estis in convivio.

"The bore's head I understande,
Is the chefe servyce in this lande;
Loke wherever it be fande,
Servite cum cantico.

"Be gladde, lordes, both more and lasse,
For this hath ordayne our stewarde,
To chere you all this Christmasse,
The bore's head with mustarde."

Boar's Head, a well known cognizance of many old

families notably the Gordons. It was also the sign of the tavern in Eastcheap immortalized by Shakespeare. It stood where the statue of William IV. now stands, at the end of King William Street.

BOAST (*Ebancher*). In addition to its ordinary meaning of proud speech &c., this word is used by sculptors to signify the blocking out roughly of a piece of stone or wood, which thus forms a near approach to the desired figure, but leaves the smaller details to be worked out afterwards. The ornamental portions of buildings, if they are to be placed in an obscure position, are frequently "boasted," *i.e.*, roughly hewn out and placed in position without being carefully finished off.

BOATING.—A boat is managed or propelled by either sails or oars. When the art is pursued by means of sails, it is termed yachting; when the propelling power is that of oars, the art is termed rowing. (*See* ROWING and YACHTING.)

BODLEIAN LIBRARY, *bod'-le-an*, the public library of the University of Oxford, so called from Sir Thomas Bodley, by whom it was restored in 1597. He presented to it a large collection of books purchased on the Continent, and valued at £10,000. Other collections were sent in to such an extent that the old building soon became insufficient to contain them; and a new wing was added to it by Sir Thomas, the foundation-stone of which was laid in 1610. He also on his death, in 1612, left a considerable estate to the university in lands and money, for salaries, repairs, and new books. Among the more important collections that have since been added to it are those of the Earl of Pembroke, John Selden, Archbishop Laud, Sir Thomas Roe, Sir Kenelm Digby, General Fairfax, Richard Gough, Edmund Malone, and Francis Douce; and the Rev. Robert Mason bequeathed £40,000 for the purchase of books. The library has also been largely increased by purchases, and by being entitled to a copy of every work printed in the United Kingdom. At present it is estimated to contain about 265,000 printed volumes, and upwards of 22,000 manuscripts, and is extremely rich in Oriental, Hebrew, and Greek and Latin books and MSS., Biblical Codices and Rabbinical works. All members of the university who have taken a degree are admitted to the use of the library; and literary persons properly recommended are also allowed to consult the books. Since 1856 a reading-room has been attached to the library, open throughout the year from 10 in the morning to 10 in the evening.

BODY COLOURS, pigments which form a thick uniform coating devoid of transparency. Body colours are generally sold in the form of powder, and require to be mixed with a little gum-water. They can be made, however, by the mixture of any simple water-colour with flake-white or Chinese white; thus, the heraldic azure is obtained by mixing ultramarine or cobalt-blue with either of these pigments. Body colours prepared in this manner are used by painters to produce brilliant effects in water-colour drawings, and form high lights, such as those reflected from armour, which cannot be obtained so clearly by putting on the colouring shade by shade, or by wiping out with rag or chamois leather.

BOG-TROTTER, a term of contempt frequently applied to the lower classes of the Irish agricultural labourers, and founded on the singular

ability they have acquired, by long custom and practice, of passing securely over the extensive quagmires or bogs of their native country.

"**BOHEMIANS**," a nickname given to and accepted by Alfred de Musset and other modern Parisian *littérateurs* of irregular habits, living with very little regard to the ordinary usages of society; the name being taken from the wandering merry Gipsies, frequently called Bohemians. Some English writers and artists, who do not trouble themselves to conform strictly to social usages in the way of costume and regular domestic habits, humorously adopt this name as descriptive of their mode of life; and the clubs and their other places of resort and the localities where they congregate are known as Bohemia.

BOHEMIAN LANGUAGE AND LITERATURE.—The Bohemian language, termed by the people themselves the *Czechish*, is a branch of the Slavonic, and is spoken by about 7,000,000 persons in Bohemia, Moravia, and Upper Hungary. It is one of the best dialects of the West Slavonic, and is distinguished from its sister dialects by the number of its roots, its great flexibility, precision of expression, and elegant grammatical construction. Like all the Slavonic tongues, however, it wants a proper form of the passive voice. It is the most powerful and manly, but at the same time the hardest of the Slavonic languages. It is also distinguished by its precise and regular orthography, introduced in the 15th century by John Huss, in which, by the use of the Roman alphabet, every sound has a particular character assigned to it. What, however, chiefly distinguishes it from most of the other European languages is, that here, as in the ancient tongues, the quantity prevails, while in the modern tongues it is the accent that governs. It is thus particularly well adapted to represent the various kinds of Greek and Latin metres. No other tongue can so completely and forcibly, and yet so naturally, convey the meaning of the ancient classics in translation as the Bohemian. Its grammar is more difficult to master than that of most other European languages, on account of its complicated forms and construction. The Bohemian literature is older than that of any of the other Slavonic tongues, ascending at least as early as the 9th century. Of the earliest period of its history, or that preceding the time of John Huss, several remains still exist. A collection of epic and lyric poems, of the pre-Christian period, are said to be characterised by great power, feeling, and tenderness. There remain, besides, about twenty poetical, and over fifty prose works, great or small, written before the time of Huss. Among these are, Dalimil's "Bohemian Chronicle," in verse (1314); Thomas of Stitny's "School-book for His Family" (1376); the still popular fable of the "Council of the Beasts;" Andrew of Duba's work on the Judicial Constitution of Bohemia (1402); and the comedy of the "Mountebank" (*Quacksalber*), about the beginning of the 14th century. John Huss, like Martin Luther, was a reformer in language as well as in religion, and from his time dates a new period of Bohemian literature (1409—1526). He revised and improved the Bohemian translation of the Bible, and was the author of some twenty books besides. Yet his influence on the literature arose less by what he wrote than by the vigour which

he imparted to it. In the old libraries and archives lie, little known and disregarded, almost innumerable tracts and treatises, dogmatic, polemical, and ascetical, by the different sects of Hussites of the 15th century. Poetry sank almost to mere rhyme, though some of the Church hymns of the Hussites are not without poetical merit. The prose, however, of this period became more fixed and expressive, and was the only medium of all public transactions. The state papers, as well as the correspondence of the statesmen of this period, are excellent specimens of a curt, clear, terse, and expressive style. Of the historical works of this period, a number have been edited by Palacky in his *Scriptores Rerum Bohemicarum* (1829). An immense number of books were destroyed during the Thirty Years War, but many works of interest were preserved by the Swedes, and are deposited in the library of Stockholm. Paul Zidek's "History of the World," and accounts of travels by Leo of Rosmital, Rabatnik and Lob Komitz, are valuable works produced in this period. The years between 1526 and 1620 are called by the Bohemians the golden age of their literature. During it, particularly under the reign of Rudolph II. (1576-1611), all the sciences and arts were studied with diligence, and an attachment to the same was publicly manifested by all classes of society. Education was much attended to, and in Prague alone there were two universities and sixteen other seminaries of education, among which were several girl's schools; while throughout the country there were numerous gymnasiums and parish schools. The language reached its highest point, both grammatically and socially; and the number of works of every kind and character that appeared during this period is very remarkable. Yet it cannot be said that the works of this time display any great amount of originality or genius. One of the most notable works is a Bohemian translation of the Bible, accomplished in fifteen years by a body of scholars under the direction of John of Loretin, and published between 1579 and 1593. This translation is accepted as a standard of pure Bohemian. Conspicuous in this period were the historians Paprocky, Hayek, and Wetestawin, and the travellers Prefat and Wratlas. The fourth period begins with 1620 and ends with 1774, when, after the battle of the White Mountain, the whole Bohemian nation submitted to the conqueror. Perhaps never did a people so speedily fall from a high state of cultivation back to the deepest barbarism. The leading men of the nation mostly perished by the sword; the clergy, scholars, nobility, and in general all the more cultivated part of the nation, left the country. Their places were supplied by Italian, Dutch, Spanish, German, and other adventurers who came in troops, and possessed themselves of all dignities and offices. Jesuit missionaries went from place to place and house to house, accompanied by soldiers, in order to take and destroy all books suspected of heresy. This unfortunate destruction of books was continued far into the 18th century; and even so late as 1750 the Jesuit Antony Konias boasted that he had destroyed 60,000 Bohemian books. It is therefore matter of wonder that we still possess so much as we do of the ancient literature. In the early part of this period there were still some writers who, indebted for their culture to the previous period, continued to shed a kind of light on this deep darkness; and many of them published works in

Amsterdam, Berlin, Dresden, and other places, and sent them to Bohemia. One of the last of these bright stars was Johann Amos Comenius, the last bishop of the Bohemian Brethren, and who is still known as a writer on education. In 1774, an imperial decree ordered the establishment of German schools—normal, high, and elementary—throughout Bohemia; and in 1784 it was decreed, that in the higher schools instruction should only be given in German; so that one could only obtain the elements of learning in his mother tongue. This, which seemed to be a death-blow to the language, had in reality a contrary effect. It stirred to new life the slumbering energies of patriotic men in behalf of their mother tongue. General Count Francis Kinsky and the historian Pelzel were among the first to come forward and vindicate the claims of the unfortunate language; and they at length succeeded in obtaining some slight modifications of the decree, so that in the higher military schools instruction might be given in the Bohemian tongue. A number of distinguished writers also arose, who made use of this language; as Pelzel the historian, whose work *Nova Kronyka Ceska*, "New History of the Czechs" (1791-95), is one of the best handbooks of Bohemian history; the monk F. F. Prochazka, Wenzel M. Kramerius, Dobrowsky, and others. The labours of these individuals at length led to an improvement in the state of matters; and in 1818 a decree was issued recommending the use of the Bohemian language in the gymnasiums; and a chair of the Bohemian language was founded in the University of Prague. Since that time a love of the old dialect has been rapidly extending, and a knowledge of it has been diffused through all classes of society. In poetry and belles-lettres, among the modern names are Czelakowsky, Kollar, Holly, Lauger, Schneider, and others; in philology, Jungmann, Schafarik, Hanka, and Presl; in history, Palacky and Tomek; in archaeology, Schafarik and Wocel; in geography, Schadek and Zap; in physics, technology, &c., Sedlakzek, Smetana, Amerling, and others. Since 1831 there has been, in connection with the Bohemian museum at Prague, a special committee for the cultivation of Bohemian literature, numbering in 1849, 4,000 members. It has aided in the publication, among other works, of Schafarik's "Slavonic Antiquities," and Jungmann's "Lexicon" and his "History of Literature." Within the last few years there has been great literary activity. There are many newspapers; more, indeed, than in any other part of the Austrian empire; and, although, from the unfamiliar language, the writers in the different departments of literature are not very well known to English readers, there are many of very distinguished abilities. Among the poets may be mentioned Virchlicky, who has produced some vigorous works, to some extent modelled on the poetic writings of Victor Hugo, but marked by great and original power; Heyduk, Pokorny, Svalopluk Cech, Vajansky, Jelinek, Madame Eliska Krasowhorska; and Jerabek and Frik, dramatic poets. Very clever novelists and depicitors of Bohemian manners, are Arbes, Madame Podlipska, Stan-korsky, Jirasek, Miss Muhlstein, Zeyer, Stolba, and Smilorsky. In historical literature, the names of Rezek, Adamek, Prasek, and Gindeley are prominent; and in philosophy and art, Cuper, Sobolka, and Durdik.

BOLERO, *bo-lair'-o*, a Spanish national dance, usually accompanied with the castanets

and the cithara, and sometimes with the voice. The dance is intended to represent a love-story, commencing with coyness and diffidence, and gradually rising to the expression of passionate ecstasy. It is in the time of a minuet, and has a marked and singular rhythm.

BOLOGNESE SCHOOL OF PAINTING, *bo-lone'-yes-ze*. In the 14th century, Franco of Bologna, called the Giotto of the Bolognese school, attained a high reputation as an illuminator of missals. He also painted pictures of some considerable size, and is esteemed by historians of the fine arts as the founder of the school of his own era, with whose style and spirit the works of his contemporaries and successors became deeply imbued. Specimens of their works still exist in the church di Mezzarata. At the commencement of the 15th century, Lippo Dalmasio, whose chief subject was the Virgin, from which predilection he is known as Lippo delle Madonne, or Lippo of the Madonnas, attained a reputation for the expression of piety, combined with grandeur of treatment, that he threw into his works. An attempt made subsequently to introduce the style of treatment adopted by Venetian artists, by Marco Zoppo, who painted between 1470 and 1500, seems to have failed; and the name of Francesco Francia (a contemporary of Raffaele, and whose history bears certain points of similarity to that of Quentin Matsys, as both were originally artificers in metals, and adopted painting as a profession in after life) closes the century as the most celebrated of his school, famous for the holy and pure expression of countenance given to his Madonnas. The next painters of reputation in the Bolognese school who flourished in the 16th century, were Ramenghi (named Bagnacavallo), Innocenza da Imola, Primaticcio, and Pellegrino Tibaldi. The first of these introduced an imitation of the style of Raffaele into his works, which was copied by his pupils; while the last-named, after passing his early years in the studio of Bagnacavallo, studied under Michael Angelo at Rome, and infused much of the spirit of that wonderful painter and sculptor into his works. But the excellence of the Bolognese school, that had hitherto only sought to combine the successful modes of treatment adopted by Raffaele, Michael Angelo, and other artists of eminence, in a manner approaching servility and mere superficial mannerism, was shortly to reach its culminating point in the productions of Ludovico Caracci, and his cousins, Agostino and Annibale, as well as in those of their scholars and contemporaries, Guido and Domenichino, who had previously studied under Denis Calvart, a painter of Antwerp, who had settled in Bologna, and had introduced a taste for landscape-painting, which exercised a manifest effect on the works of the painters that have just been mentioned. Ludovico Caracci, who seems to have been influenced in a great degree by the paintings of Correggio (regarded at that time by all existing schools as a model of excellence well worthy of imitation) after studying at Venice and Parma, determined on the introduction of a new style, in which his cousins were persuaded to assist. The chief characteristics of this new element in the Bolognese school seem to have been a careful observation of nature and natural effects in conjunction with the imitation of the various styles of the great masters, and a proper attention to correct outline-drawing, perspective, and the anatomy of the human

figure, which had been neglected by the predecessors of the Caracci. An impulse in a fresh direction was thus given to the art of painting, and the labours of Ludovico at Bologna, and of Annibale at Rome, imparted a new colouring, and exercised a decided influence over works of art produced about 1600, and for many years subsequently, throughout Italy. The leading features of Ludovico Caracci's paintings, as given by Sir Joshua Reynolds, are—great breadth of light and shadow; simplicity of colouring, which has the merit of not drawing away the attention of the spectator from the subject of the painting; and a mellow twilight effect that seems to be diffused over his pictures, and is in perfect harmony with the grave and dignified subjects which he chose for treatment. Among the followers of the Caracci and painters of the Bolognese school may be enumerated Domenichino, Guido, Guercino, Lanfranco, Tiarini, Lionello Spada, and Cave-done. Since the middle of the 17th century no painter of eminence has been found in this school to sustain the reputation which had been acquired for it by the Caracci and their pupils, with the exception of Carlo Cignani, who was mainly instrumental in founding the Clementine Academy of Bologna, in which he sought to combine the study of the old masters with a careful observation of nature and attention to anatomical science. A considerable number of valuable works by the painters of this school are in the National Gallery.

BOMB-PROOF, *bom*, a term applied to military structures which are so massively built that any missile discharged from a gun, as a bomb-shell or cannon-ball, cannot penetrate them. Magazines are constructed bomb-proof, and case-mates are bomb-proof vaults in fortresses for the security of the defenders.

BOMBAST, *bom-bast'*, an attempt by greatly exaggerated language to raise an ordinary or trivial object to the rank of the sublime, or to exalt a sublime object beyond all natural or reasonable bounds. One of Ben Jonson's characters says:—

"My roof receives me not; 'tis air I tread,
And at each step I feel my advanced head
Knock out a star in heaven."

Shakespeare's *Ancient Pistol* affords some capital specimens of the language of bombast.

BONA FIDES, or **BONA FIDE**, *fī'-dees* (Lat., good faith, or in good faith), an expression frequently used as synonymous with the words real or genuine, and also as denoting a thing done with an honest intention, in opposition to one done with a bad or deceitful intention, said to be *malā fide*. The phrase originated with the Romans, who classed under *bonæ fidei* obligations a great variety of contracts, as well as of legal acts. Actions *bonæ fidei* were distinguished from those *stricti juris*; the former having regard to the honesty of the intention, the latter to the strict legal terms of the deed. The distinction was somewhat analogous to that which prevails between courts of law and courts of equity in England.

BONFIRE, *bon'-fire* (Welsh, *ban*, high; or Danish, *baun*, a beacon), a fire made for some public rejoicing, usually on the top of a hill, or in an open part of a town, so as to be visible from a distance. The practice of kindling bonfires in this country is one of great antiquity. (See BELTEIN.)

BONHOMMES, *bon'-om*, an order of hermits of simple lives and manners, who made their appearance in France about 1257. The prior of the order was called by Louis VI. *le bon homme*, "the good man," whence they derived their name. They made their appearance in England in 1283.

"Jacques Bonhomme," was a name given in contempt by the old French nobles, to the peasant whom they tyrannized over and robbed.

BONNET, *bon'-net*, a covering for the head, of which there are many varieties. It is applied to the head-dress of either sex. In Scotland the "blue bonnet" was at one time the national characteristic of the lowland Scotch, and was famous both in song and story. It was manufactured of thick milled woollen, and was broad, round, and flat in appearance, with a small red tuft on the top. It is still worn to a considerable extent by the peasantry of that country, and small landowners of the peasant class were spoken of as "bonnet lairds." The Glengarry, or Highland bonnet, is differently shaped, rising to a point in the front. As an article of dress for women, the bonnet is indeed a "vesture of infinite variety," both in form and material, and any attempt to describe it at length would require a huge volume for the purpose.

In Fortification, a bonnet is a small defence work constructed at the salient angles of the larger works, for the purpose of checking the advance of the besiegers. An outwork of a similar character, but having three salient angles, is known as *bonnet de prêtre*, a priest's bonnet. The term bonnet is also sometimes applied to the elevation of the parapet above the general level of the work.

BOOK, *book* (Sax., *boc*, and Danish, *bog*, the beech-tree, the inner bark of which was used for writing material). A general name given to almost any kind of literary composition, but in a more limited sense to such as are large enough to form one or more volumes. When short, occupying only a few sheets, sewed or stitched together, it is called a pamphlet. Certain divisions of a literary work are also sometimes designated by this name; as the Books of Homer's *Iliad*, or of Virgil's *Æneid*. In ancient times books were commonly written upon prepared stripes of the Egyptian plant papyrus. They were wound round small cylinders or rollers—whence the Latin term *volumina*, and our word volume. The prophet Ezekiel says, "Lo, a roll of a book was therein." The Greek word for a book, *biblion*, is derived from the Egyptian name of the papyrus, and the Latin word *litter* from the cellular tissue of the plant instead of the plant itself. Our familiar words, "bibliography" and "library," and cognate words, may be traced to these roots. Plates of lead and copper, wood, the bark of trees, and even bricks and stone, have been employed as materials in the construction of books. Leather and parchment were also used by the ancients, and when, by the capture of Egypt by the Arabs, in the 7th century, papyrus could no longer be obtained, the use of parchment became general. During the Middle Ages, the plan of rolls was discontinued, and the form of leaves sewed or bound together came into use; but in legal language the roll of parchment delivered into the Court of Exchequer is styled a book. The manufacture of books was for the most part in the hands of the different orders of monks, many of whom spent a great part of their lives in the transcribing of them. In the earlier part of the Middle Ages, the scarcity of books was so great

that often in a whole town there was not one to be found, and even rich monasteries possessed little more than a missal. The labours of the monks, however, did much to improve this state of things; while the general introduction of paper about the 13th century and the invention of printing have produced results of the most stupendous kind in the production of myriads of books and the diffusion of knowledge. Modern books are usually of smaller size than those produced two or three centuries ago. No writer of an important book now thinks of producing it in folio or even quarto, except in the case of illustrated works, where a large page is desirable for the sake of the pictures. The ordinary sizes for first-class works are octavo (8vo), the sheet of paper being folded so as to make eight leaves; duodecimo (12mo) and smaller sizes (18mo, 32mo, 48mo, and 64mo) being the most familiar forms of cheaper or less important works. The sizes of the books, of course, depend upon the sizes of the sheets of paper on which they are printed; in octavo volumes, for instance, imperial octavo is about twice as large as post octavo, and nearly as large as a demy quarto, but more oblong in shape, quarto volumes being nearly square in form. There are now considerable variations from the old standards of the size of paper (see PAPER), and books no longer preserve the uniformity of size they formerly presented.

BOOK OF SPORTS, the title given to a proclamation issued at Greenwich, in May, 1618, sanctioning different recreations, as dancing, archery, leaping, May games, &c., after divine service on the Sunday. It was intended only to apply to Lancashire. The proclamation was very offensive to the Puritans, and therefore clergymen were not compelled to read it. In 1633, Charles I. revived the proclamation, and one clergyman was deprived from his office for refusing to read it. In 1643, it was ordered by the Lords and Commons to be burned by the common hangman in Cheapside and at various other public places.

BOOKSELLERS' MARKS OR SIGNS. Many of the early printers, or booksellers, in place of putting their name on the title-page of their books, adopted a certain mark or sign; and hence a knowledge of these marks is of use in distinguishing different editions of works. The anchor is the mark of Raphelengius at Leyden; the anchor with a dolphin twisted round it, that of Manutius at Venice and Rome (adopted by the publisher of the modern Aldine editions); the Arion, of Oporinus at Basel; the caduceus or Pegasus, of the Wecheliuses at Paris and Frankfurt; the cranes, of Cramoisy; the compass, of Blantin at Antwerp; the fountain, of Vascosan at Paris; the sphere in a balance, of Janson and Blaew at Amsterdam; the lily, of the Juntas at Venice, Florence, Lyons, and Rome; the mulberry-tree, of Morel at Paris; the olive-tree, of the Stephenses at Paris and Genoa, and the Elzevirs at Amsterdam and Leyden; the bird between two serpents, of the Frobeniuses at Basil; the Truth, of the Cornelius's at Heidelberg and Paris; the Saturn, of Colinaeus; the printing-press, of Radius Ascensius. A monograph formed of the initials of the members of the publishing firm is also commonly used.

BOOK SOCIETIES, OR BOOK CLUBS, are associations for the purchase and circulation among the members of new books as they issue

from the press; after which they are usually disposed of by auction among the members, or sold to the public.

BOOK-TRADE. In early times, when books were scarce and had all to be transcribed, those who copied them usually also disposed of them. In the later period of Roman history, however, there arose a class of persons termed *bibliopole*, who acted as a kind of middle-men, employing or purchasing books from the transcribers and disposing of them to the public. In the reign of Augustus, the brothers Sosii were celebrated in this way, and received special mention from Horace. With the establishment of several universities in the 12th century, the trade in books was much increased, particularly in such towns as Paris and Bologna. In 1323, a statute of the University of Paris distinguishes between *stationarii*, or booksellers proper, those who buy from one party and sell or lend to another, and *librarii*, those who merely buy and sell books on commission. After 1342, no one could deal in books in Paris without the permission of the university, who had special officers to examine the manuscripts and fix the price. It was not, however, till after the invention of printing that the book-trade attained any importance. At first the printers were likewise booksellers; and John Fust and Peter Schöffer disposed of the productions of their press in Paris and Frankfort-on-the-Main. Some instances of the division of the two branches occur in the 15th century. The first booksellers were usually termed stationers, either from the Latin word *stationarius*, or from having only stalls or stations in the streets and market-places of the towns, as is still to be seen in the case of dealers in old books. Now the term stationer usually denotes a dealer in paper and other writing materials. At first, the civil magistrates concerned themselves little about the booksellers, leaving them to the control of the universities, of which they were supposed to be the immediate retainers, and which, accordingly, gave them laws and regulations, examining the correctness of their books and fixing the prices of them. This, however, was soon changed, and the trade of book-selling was put under various restrictions. In England it is regulated by Royal patents, licenses, and charters granting monopolies. In 1556, the Stationers' Company of London was incorporated. It was composed of printers and booksellers, who exercised a kind of censorship over the press. In 1662 the famous Licensing Act (13 and 14 Car. II. c. 23) was passed, which prohibited the publication of any book unless entered in the register of the Company of Stationers. In the reign of Anne, the monopoly was removed by the first Copyright Act (8 Anne, c. 19), which enacted also that the Archbishop of Canterbury, the Lord Chancellor, and certain specified judges, should be empowered to regulate the price of books, and impose penalties if prices higher than that fixed were demanded. Another Act (12 Gen. II. c. 36), passed in 1738 abolished this provision. The great centre of the book-trade in the United Kingdom is London, though a considerable number of works are also published in Edinburgh, Dublin, Oxford, Cambridge, Manchester, Glasgow, and other provincial towns. Many provincial publishers, however, have branch establishments in London, and all of them have agents there, to whom they consign a certain number of copies of every work they publish, and to whom

they also address their orders for copies of such books as they may have occasion for. The booksellers of Edinburgh and Dublin also act as agents for those of London, and supply the Scotch and Irish trade with the metropolitan publications. The London publishing trade was in the last century chiefly located in Little Britain; but afterwards Paternoster Row (popularly known as "the Row") became the principal centre of the trade. Some of the leading houses are there still, but many of the great firms have been established in, or removed to, other districts. If the principal publishing houses were marked on a map of London, it would be seen that, with occasional variations, they follow the main line of thoroughfares between Leadenhall street and Cornhill on the east, to Piccadilly and Albemarle street on the west. The book-trade is carried on by various classes of publishers. First come those who arrange with authors, superintend the printing of books, and supply them to the retail trade, dealing only with books issued by themselves; then there are publishers to whom authors apply, and who take little risk, as the authors pay all expenses, the publishers receiving a certain proportion of the profits, if any, and charging a commission on the sale; and publishers, who act as warehousemen, and supply the retail trade (especially the country trade) with the books published by any other house. The retail booksellers are those who deal directly with the book-buying public. Within about the last thirty-five years, a new feature has been added to the retail bookselling trade, by the establishment of railway bookstalls, originated by Mr. W. H. Smith, the eminent news-vendor and bookseller, and now so generally adopted by other firms, that a railway station (except the very smallest) might almost as well be without a booking-office as without a book-stall. In recent years the book-trade has undergone an immense change by the development of cheap literature. The few firms which once enjoyed almost a monopoly have been rivalled, to some extent superseded indeed, by enterprising publishers, who have produced works of high literary merit at a low price. Mr. Charles Knight and Messrs. Chambers may be credited with originating cheap literature; and they have been worthily followed by Messrs. Routledge; S. O. Beeton; Cassell, Petter, & Galpin; Ward, Lock, & Co., and other firms who publish standard and popular works in cheap form, and by the mode of publishing in weekly numbers and monthly parts, have most beneficially aided in the diffusion of great literary productions. In 1852, the booksellers of London formed a kind of trade-union, by which they attempted to compel retailers to sell books only at the regular fixed price; but the attempt entirely failed, and retailers may now sell books at any price they please. The deduction allowed by the publisher to the retailer is usually 25 per. cent., or 3d. per shilling, thirteen volumes counting as twelve. Frequently, a work is "subscribed" for among the trade; that is, booksellers put down their names for a certain number of copies of a work before it is published, it being then offered at a somewhat lower rate than is afterwards allowed. In order to get rid of remainders of books, trade sales are often had recourse to, when they are either offered in small quantities at a very reduced price, or sold in the lump by auction. Publishers wishing to dispose of a portion of their stock sometimes issue to the trade sale

catalogues, in which they offer certain books at a greatly reduced price. Some of the largest houses give trade dinners at the opening of the publishing season, in the autumn, followed by a "subscription" by members of the trade, large editions of attractive works being sometimes disposed of before the company separate. The terms of the agreement entered into between a publisher and an author are various, depending chiefly upon the character of the author and the nature of the book. Sometimes the publisher purchases the copyright for a fixed sum, and takes the whole responsibility of the sale upon himself; sometimes the author retains the copyright, undertakes all risks, pays all expenses, and allows the publisher a certain commission on the sales; sometimes the publisher agrees to take all the risk of printing and publishing a certain number of copies, and to divide the profits with the author, who still retains the copyright of the work. The "canvassing trade," is the disposal of works, published in monthly or other parts, by canvassers who go from house to house, and are remunerated by a commission on the amount of business they do, has been long established, but is chiefly limited to the sale of showily illustrated books. The old-book trade, or the sale of second-hand books, is carried on to a considerable extent in all the larger cities and towns of the United Kingdom; but London is its principal seat. Many of these dealers engage in very large transactions, purchasing entire libraries, and employing agents in all the chief cities of the Continent to look out for rare and valuable books. They prepare periodically price catalogues of their books, which they circulate through the country, and in this way dispose of a great many of their books. The price of old books is very fluctuating and capricious, depending in some measure upon their condition or intrinsic value; and also upon the knowledge of the value of books possessed by the dealers. Sometimes a rare volume is picked up for a trifle by a connoisseur, who would gladly have given fifty times the amount for it, had it been asked; but the dealer is ignorant of the value. In Germany (which claims to be the first bookselling country in the world), there are about 3,500 publishers and booksellers. The great centre of the trade is Leipsic, where two great book-fairs are held annually, at Easter and Michaelmas respectively. These fairs are not so important or so largely attended now as formerly, a great part of the business being effected by means of agents or commissioners, of whom there are about 100 resident in the town. Every bookseller in Germany has his commissioner at Leipsic, to whom he transmits copies of all his new publications, and who distributes them among the other commissioners, to be transmitted to their employers. At the end of the year the unsold works are sent back by the same means to their several publishers. The great advantage of this system is that every new book is, within a few weeks of publication, made known throughout Germany without having recourse to the expensive and imperfect system of advertising. The accounts of the various booksellers are also usually settled by means of the commissioners. There is a book exchange, with about 120 members. Other centres of the German book-trade are at Stuttgart, Vienna, Berlin, and Prague. In France the book-trade is carried on much in the same way as in England, and centres in Paris. In the United States of America, the book-trade is carried on to a large extent, and on

account of non-existence of international copyright, the books of this country are largely reprinted there. It is, however, only fair to say that the compliment is returned by the issue in this country of American works. The American publishing trade has rapidly developed. In the twelve years from 1830 to 1842, the entire number of books published in the United States showed an average of little more than 100 a year; just before the outbreak of the great contest between the Federals and Confederates, about 1,500 was the yearly average; now it is nearly 5,000. There are about 450 publishing houses in the United States, about three-fourths located in New York, Philadelphia, Baltimore, and Boston, the rest being principally in Cincinnati, Charleston, New Orleans, Buffalo, Auburn, Albany, Louisville, Chicago, St. Louis, and Hartford. In 1881, the books and pamphlets published in France numbered 12,261, which is more than double the number of those issued in Great Britain in the same period. Our own country exports nearly five times as many books as are imported. Of the imports, about one-third are from France; Germany and Holland coming next. We receive only about one-third as many from the United States as from France. The value of books exported in 1880 was £970,675. In 1881, there were published in this country 5,406 books, (4,110 new and 1,296 new editions), thus classed:—Theology, sermons, biblical, &c., 945; educational, classical, and philological, 682; juvenile works and tales, 500; novels, tales, and other fiction, 674; law, jurisprudence, &c., 133; political and social economy, trade and commerce, 162; arts, sciences, and illustrated works, 452; voyages, travels, geographical research, 291; history, biography, &c., 437; poetry and the drama, 148; year books and serials in volumes, 339; medicine, surgery, &c., 164; belles lettres, essays, monographs, &c., 247; miscellaneous, including pamphlets, not sermons, 232.

BOOMERANG, *boom'-e-rang*, a missile instrument used by the aborigines of Australia, in war, sport, and the chase. It consists of a piece of hard wood of a bent form, with the curve of a parabola, is about 2 feet long, 2½ inches broad, ½-inch thick, and is rounded at the extremities. One side is flat, the other convex, and it is brought to a blunty edge. It is discharged by the hand by one end, the convex edge being forward and the flat side upward; and it is thrown as if to hit an object in advance; instead, however, of going forward, it ascends into the air with a rapid rotatory motion, until it reaches a considerable height, when it begins to retrograde, and finally passes over the head of the projector and falls to the ground behind him. This singular motion is produced by the air impinging on the bulged side of the instrument. The boomerang, the invention of which would have done honour to the most celebrated man of science, has long been a common weapon among almost the lowest races of savages upon the earth, and was first made known in this country by Professor M'Cullagh, in 1837.

BOOT, *boot* (Fr., *botte*), a covering for the foot and lower part of the leg, in the latter respect differing from a shoe, which covers the foot only. Coverings and protections for the feet have been made of different substances, and in different forms, from very remote times. Before the invasion of the Romans, the ancient Britons wore shoes made of raw cowhide, with the hair

turned outwards. They reached as far as the ankles. The Roman influence soon produced a change in the costumes of the British. Among the early Saxons, shoes were made upon the Roman model, and boots reaching to the middle of the leg, and laced up in front, were also in common use. They were generally of leather. The sandal also began to be used; but it was not suited to this climate, and was principally worn by the monks. The boots of the later Saxons were very similar to the half-boots of modern times. Boots with wooden soles were much worn by men of high rank at that period. The boots of Bernard, king of Italy, the grandson of Charlemagne, had "the soles of wood and the upper parts of red leather, laced with thongs." The Normans wore boots similar to the Saxons. During the reigns of William II., Henry I., and Stephen, the toes of boots and shoes were lengthened to an extravagant extent. From that time until the reign of Richard III., the boots generally worn by the higher classes were ornamented profusely. During the reign of Richard II., the length of the toes increased still more, so that it is even said that the wearers were in the habit of fastening the tips to their knees, in order to allow them to walk freely. In the reign of Edward VI., long boots, coming up to the knee, were worn, and half-boots, with long toes, laced up the side. During the latter part of this reign, the long toes were banished altogether, and short broad-toed boots took their place. These hardly covered the feet, and were made of kid leather, slashed, in order to show the coloured hose beneath. In Henry VIII. and Elizabeth's reigns slashed shoes, and others ornamented with rosettes or gold and silver lace, were worn. This fashion obtained till the time of Cromwell. Russet boots, coming close to the knee, with large stiff tops, then came into fashion. A flap of leather protected the instep; and they were broad-toed and had thick, clumsy heels. Large cumbrous boots were worn both by the Royalists and Roundheads. The courtiers of Louis XIV. wore very extravagant boots, with very wide tops, which were decorated with a profusion of costly lace. The dandies in Charles II.'s reign adopted boots of this kind. During the reign of William III., shoes with high heels, broad toes, and large ties were worn. Small buckles also came into fashion at the same time. The stiff jack-boot, was also introduced at this time. They were high in the heel, and the instep was covered with a large piece of leather, to which the heavy spur was fixed. They were only worn when riding, and all cavalry soldiers were furnished with them. The jack-boot may be considered the origin of the top-boot and all the other varieties of long boots now worn. Boots with yellow tops were much worn in the 18th century in England; and the duke of Orleans and other revolutionists, who affected sympathy with the English, wore top-boots ostentatiously. They are now only seldom worn, except by hunters and jockeys. The Hessian boot superseded the top-boot; it was worn with tight pantaloons, was fitted to the shape of the leg, and had a tassel in front, altogether a very handsome leg-covering. Spring-sided boots (that is, with elastic gussets, rendering buttons or laces unnecessary), and boots laced up in front are now generally worn, having almost entirely superseded the Wellington, or long boots covered by the trousers, for a long period so fashionable.

BORDER MINSTRELSY. (See MINSTRELSY OF THE SCOTTISH BORDER.)

BORDURE, *bor'-dure* (Fr., *bord*, the edge), in Heraldry, a narrow space, running round the edge of the shield, and generally showing that the bearer is a cadet of the house whose arms he carries. The inner edge of the bordure is sometimes varied, according to the different forms of lines of division and boundary used in heraldry, and according also to the profession of the bearer.

BORROWING DAYS, *bor'-ro-ing*, in the popular antiquities of Scotland, and some parts of England, is the name given to the last three days of March, from the popular notion that they were borrowed or taken from April. In this view they were to be characterised by wind, rain, snow, and sleet; and the broken weather that usually prevails about that time gave some colour to the notion.

BOSS, *boss* (Fr., *bosse*), an ornamental projection covering the intersection of wooden ribs that cross each other, generally at right angles, dividing the surface of a flat or vaulted ceiling into compartments. The boss is often beautifully carved into foliage or fretted work, and sometimes shields with armorial bearings are introduced, and representations of the human face, and heraldic emblems. It is most frequently introduced in buildings belonging to the Decorated English and Perpendicular English styles of architecture. The name is also given to the projection sometimes found in the centre of a shield.

BOTANIC GARDEN, a garden in which plants are cultivated for the purpose of forwarding the study of botany, and where exotic plants are reared by means of glass-houses and heating apparatus, affording temperature adapted to the nature of the plants. Botanical gardens were unknown until the early part of the 14th century, the first of which we have any record having been formed at Salerno, by Matthæus Sylvaticus, for the purpose, however, of cultivating medicinal herbs, rather than for the forwarding of botanical science generally. A medical garden was established at Venice in 1333, and similar gardens were soon afterwards formed in other Italian cities. Gardens, more strictly botanical in character, were formed at Padua in 1533, and were made public gardens by a decree of the Republic of Venice in 1545. Pisa, Bologna, Florence, and Rome, also had botanical gardens. Other gardens were established, and supplied with plants obtained by great expense and labour, at Leyden (1577), Leipsic (1580), Montpellier (1558), Paris (*the Jardin des Plantes*, 1610), Vienna (1753), Madrid (1755), St. Petersburg (1785). The first public botanical garden in England was founded at Oxford by the Earl of Danby, in 1632, but some private gardens had previously been formed. Sir Hans Sloane established "a physic garden" at Chelsea, which in 1721 he gave to the Apothecaries' Company. The most extensive botanic gardens in this country are those at Kew, occupying 75 acres, and possessing one of the richest collections of plants in the world. They are open to the public. The great Palm House—almost another Crystal Palace—is 362 feet long. Several other conservatories and the Museum are of great value to the students of botany, containing extensive and splendid collections. The most attractive conservatories are the Aroidous House

—where are the tropical arums—the Water Lily House, the Cactus House, the Tropical Fern House, and the Temperate House. The Museum consists of four buildings, of which the old Orangery and the Herbarium are perhaps the most attractive. The botanical gardens of the Horticultural Society were established at Chiswick in 1821, and at South Kensington in 1860. The Royal Botanic Society's Gardens in the Regent's Park were opened in 1839. At Edinburgh there was a garden, formed in 1680 by Dr. Balfour, and now supported by an annual grant from the funds of the University. There is a very valuable garden at Calcutta, established in 1793, and very rich in specimens of the vegetation of India. In America there are many botanic gardens, one of the finest being at New York.

BOTONE, or BOTONNY, *bot-o-ne'* (Fr., *bouton*, a button). In Heraldry, a cross botoné is a cross of which the ends are in the form of buds or buttons.

BOTTLE CHART. Sailors occasionally resort to the practice, and especially when in danger, of enclosing a paper describing the whereabouts of the ship and other items of news, in a sealed bottle and throwing it into the sea, in the hope that it may be carried by the ocean currents to some adjacent land. Observations of the directions in which these bottles have floated have been made, and charts have been constructed which throw considerable light on the strength and direction of currents. Bottles have drifted to land after remaining in the sea fifteen or sixteen years.

BOUDOIR, *boo'-dwaw* (Fr., *boudoir*, to pout), a lady's small private apartment, in which she receives only her most intimate friends. A retired, quiet place, was often known as a "pouting-place," where persons, when vexed, could remain undisturbed until they regained their good temper. Leicester House, in Leicester Square, where the eldest sons of George I. and George II. lived when they quarrelled with their fathers, was known as "the pouting-place of princes." Boudoirs became very fashionable in France during the reign of Louis XIV., and were frequently adorned in the most luxurious and fantastic manner. Ladies now delight in furnishing their boudoirs with elegance.

BOUGET, *boo-zhai* (Fr., *bouget*), in Heraldry, a charge of peculiar form, representing an ancient vessel used for the purpose of carrying water.

BOULEVARD, or BOULEVART, *bool'-vard* (Ger., *bollwerk*; Eng., *bulwark*), is a French term denoting the outer fortifications or ramparts of a town. Many of these have now been levelled, the ditches filled up, and the space laid out in public gardens, parks, and promenades finely shaded with trees, but still retaining their old name. The boulevards of Paris form the most splendid and fashionable streets in the capital. They are mostly planted with trees.

BOURGEOIS, *boorz'-warv*, a French term almost equivalent to the English "burgess," describing the inhabitant of a town, but distinct in meaning from *citoyen*, which means a citizen of the state. *Bourgeoisie* is applied to the class of traders or manufacturers. Molière's *Bourgeois-Gentilhomme*, or "trader turned gentleman," is one of the cleverest of the French comedies. The

word is also used to designate a civilian, as compared with a soldier.

BOURGEOIS, a size of type. (See **PRINTING**.)

BOURNOUSE, *boor'-noose*, a large woollen mantle with a hood, which is thrown over the head in wet weather. It is worn by the inhabitants of Algeria and other parts of Northern Africa. The bournouse is put over the rest of the attire, and is coloured so as to suit the fancy of the wearer. White, however, is the principal colour. The name is Arabic, but amongst the Spaniards this garment has long been known under the name of *albornoz*, evidently the same word, with the article prefixed.

BOUSTROPHEDON, *boo'-strof-e'-don* (Gr., *bous*, an ox, and *stropho*, I turn), a term used to denote that mode of writing which was practised by the Greeks in the earlier period of their history. Instead of each line proceeding from left to right, they proceeded from left to right and right to left alternately, so that each line commenced at the side at which the previous one terminated, like oxen in ploughing; and hence the name.

BOUTS RIMÉS, *boo-re'-mai* (Fr., rhymed endings), a social amusement, which consists in making lines to suit certain rhythmical terminations which are given out by one of the party, the others having to supply the lines as well as they can. It is usual to choose such rhymes as seem the remotest and have the least connection. It is said to have originated with Dulot, a French mediocre poet of the 17th century, and was at one time extremely popular.

BOW, *bo*, one of the oldest of weapons, in the use of which the English, during the Middle Ages, were extraordinary expert. The *Long-bow* was usually made of yew, also of wych-hazel. It consisted of a long stave of finely-shaped wood, to each end of which the string or bow-line was attached. (See **ARCHER**, **ARCHERY**, &c.) The *Cross-bow* was a description of **ARBA-LIST**. The former of these weapons was generally preferred by the English bowmen. It was considerably less cumbersome than the cross-bow, and more than twelve arrows could be discharged from it whilst one was being impelled from the cross-bow.

A Musical Instrument, a stick of hard elastic wood, along which are stretched horse-hairs, the tension of which is regulated by a screw. It is used for playing upon instruments of the violin kind, and varies in size, the double-bass and violoncello bow being much stiffer and stronger than that of the violin.

BOWMEN, *bo'-men*, men who shot with bows. (See **ARCHER**.)

BOWER, *bow'-er* (Anglo-Saxon, *bur*, a chamber), a term applied to an arbour, or a space enclosed by overhanging trees or by shrubs. Also, a lady's private or sleeping chamber.

BOWIE-KNIFE, *bo'-e*, a sharp-pointed American knife, bearing a close resemblance to the French *couteau de chasse*, or English butchers' knife. A story is told of its having been introduced into America by a certain Colonel Jim Bowie, of Texas, who acquired great notoriety by the skilful manner in which he wielded the weapon in his hand-to-hand encounters. It was carried in a sheath secreted somewhere about the person; but is used much less now than formerly.

BOWLS, *boles* (Fr., *boule*), a favourite game, played upon a smooth grassy surface, either square, circular, or oblong, used only for the purpose, and called a bowling-green, which is surrounded by a trench about half-a-foot deep. Bowls are made from a wood called lignum vitæ (*Guaiacum officinale*); they have a diameter of six or eight inches, with a bias to one side. The party playing may consist of two, four, six, or eight, and is generally chosen after tossing up a coin to decide who shall have the first choice. Each player has two bowls, which are marked with numbers, thus distinguishing the players. The sides being selected, the leader of the game sends off a small white ball from one end of the bowling-green to any distance he pleases. This small white ball is called the *jack*, and the leader throws his first bowl so as to place it as near the jack as possible. He is then followed by one of the adverse party, the partner of the first following, and so, in rotation, till all the bowls are played. The game is won by the side whose bowls are nearest the jack. The number of points required to make the game is arranged beforehand; 7, 14, 21, or 31, are the numbers usually fixed. Great disappointment often happens to a player when his bowl, after being placed close to the jack, is removed by a blow from a subsequent player's bowl. This is called a "rub." Hence the old adage, "He that plays at bowls must expect rubs." Bowls are weighted or biased on one side, in order that the player may be able to bowl towards the jack in a curved direction. A *fore-hand* bowl is played with a curve from the right, and a *back-hand* bowl with a curve from the left. If a bowl goes into the ditch without striking the jack, it does not score; but if it strikes the jack and goes into the ditch, it reckons as if it were upon the green. When the jack itself is knocked into the ditch, it is replaced upon the green, in the place nearest to where it lay in the ditch. The game of bowls was prohibited in England during the reign of Henry VIII. by Act of Parliament; that law, however, was repealed in 1845. It has for centuries been a favourite pastime in the British isles. In former days it was also a very favourite game with the Dutch. The early inhabitants of New York city, then called New Amsterdam, made it a common recreation, and the ground used for play is now a small park, and still called the Bowling green. It is situated at the lower end of Broadway.

Bowls, American, is a game of modern invention, recently introduced into England from across the Atlantic. It is played in saloons fitted with alleys of from fifty to sixty-five feet in length, and about four in width. The game somewhat resembles the English ninepins or skittles, but ten pins are used.

Bowling-Alley, or **Bowling-Saloon**, a long narrow erection made for playing the game of skittles, or ninepins, or tenpins (*q.v.*).

BOW-WINDOW. (*See* BAY-WINDOW.)

BOXING. (*See* PUGILISM.)

BOYEAU, *bwoi'yo* (Fr., *boyau*, bowels)—any covered line of approach made towards the defensive works, during the siege of any place, by the attacking party. Boyeaux, termed parallel or zig-zag, according to their direction with reference to the front of the work against which the attack is directed.

BOYLE'S FUMING LIQUOR, a mixture of several sulphides of ammonium and water, which, exposed to the air, fumes and gives off an intensely foetid odour. It receives its name from

having been invented by Robert Boyle, one of the fathers of chemistry in England, and is obtained by distilling one part of sulphur, two parts of chloride of ammonium, and two parts of lime. It is a yellowish oily liquid, and very rarely used in medicine under the name of *Liquor fumans Boylei*.

BOYLE LECTURES, a course of eight annual lectures founded by the Hon. Robert Boyle in a codicil annexed to his will, dated 1691. For the support of this lecture he assigned the rent of his house in Crooked Lane to some learned divine within the bills of mortality, to be elected for a term not exceeding three years. The fund proving precarious, the salary was ill paid, and to remedy this, Archbishop Tenison procured a yearly stipend of £50 for ever, charged on a farm in the parish of Brill, Bucks, to be substituted. The design of the lectures, as expressed by the founder, is to prove the truth of the Christian religion against infidels, without descending to any controversies that may exist among Christians themselves. The lecturer is further to assist and encourage any undertaking for propagating the Christian religion. To this foundation we are indebted for many elaborate defences of natural and revealed religion. The first series, "A Confutation of Atheism," was preached in 1692, by Richard Bentley. A collection of these sermons, from 1692 to 1732, was published under the title of "A Defence of Natural and Revealed Religion," 3 vols. folio; and in 1737 an abridgment of many of the lectures was published by Gilbert Burnet, vicar of Coggeshall, in 4 vols. 8vo. Since that time a number of the series have been published. In 1846, the Rev. F. D. Maurice preached the lectures, "The Religion of the World." Professor Plumtre in 1866, Professor Stanley Leathes 1868-70.

BRABANÇONNE, *bra'-ban-son*, the national song of the Belgians, originally sung during the revolution of 1830. Its author was a young French actor named Jenneval, and it was set to music by Camphenhout. Each verse ends with the refrain—

"La mitraille a brisé l'orange
Sur l'arbre de la liberté."

(The grape-shot has bruised the orange upon the tree of liberty.)

BRACÆ, OR **BRACCÆ**, *brak'-se*, the name given to leg-coverings worn by the nations surrounding the ancient Roman and Greek populations. Trousers, or braccæ, were worn by the Medes and Persians, the Parthians, the Phrygians, the Saccæ, the Sarmatæ, the Dacians and Getæ, the Teutones, the Belgæ, the Britons, and the Gauls. In ancient monuments the nations mentioned above are all represented in trousers, in order to distinguish them from Greeks and Romans. Braccæ were principally made of woollen materials, but they were sometimes made of silk and leather. They were sometimes striped, and ornamented with a woof of various colours. The ancient Greeks never wore them, but they were generally adopted by the Romans in the 2nd century of the Christian era.

BRACE, *braise* (Fr., *embrasser*, to embrace, bind together), that which holds in position, thus in Architecture, it is a piece of timber placed in a slanting direction, and fastened at either end to the principal timbers of the roof of a house to add to their strength and stability.

In Typography, a mark employed to show that two or

more lines are united in reference to words that are applicable to all; as, for instance, in a sale catalogue—

A bay cart-horse,	} The property of Mr Brown.
A farm-waggon,	
A threshing-machine,	

The brace was also formerly used to connect three lines of poetry forming a triplet.

In Music, the brace is placed at the beginning of the stave of any composition, and used to bind the harmonizing parts together, in order to guide the eye with greater facility from one set of staves to another. When more than two staves are joined together, either for part-singing or playing in concert, it is usual to draw a smaller brace within the large one, in order to distinguish each part. This union of braces is called a score.

In Heraldry, when three chevrons are drawn interlacing each other, they are said to be braced.

BRACELET, *brass'-let* (Lat., *brachium*, an arm; also Fr., *brasselet*, an armlet), an ornament generally worn encircling the wrist, but sometimes on the arm above the elbow. (See **ARMLET**.) From the earliest days bracelets and armlets have been worn by all nations, both savage and civilised. In the Bible, three different words are translated "bracelet" in the authorized version. The first probably means armlets worn by men, with a special reference to royal ornaments; the second, bracelets worn by women and sometimes by men; and the third, a peculiar bracelet of chain-work worn only by women. The barbarians of early Europe wore them; the Sabines, before the foundation of Rome, adorned themselves with massive golden armlets; and the Gauls and the Samians indulged in the same ornaments. In the East, the Medes and Persians especially delighted to wear these and similar adornments, which were usually very richly jewelled. In former days bracelets were used to indicate rank, and in some parts of the East this use has been continued to the present time. They frequently consisted of strings of pearls enriched with other jewels, but also of massive circles of silver or gold. The twisted spiral shape seems to have been introduced by the Greeks. In the eighteenth book of the "Iliad," Vulcan says (Newman's translation): "I for nine years forged many an artful trinket, bell-cups, and 'wreathing, screwing rings,' and necklaces and brooches." To the same people we are indebted for the famous snake pattern; indeed, many of the best designs of our present goldsmiths are more or less accurate copies of ancient originals. Among the Greeks, men do not seem to have worn bracelets; but among the Romans, armlets were frequently conferred, as marks of distinction, rewards for valour, &c. The Romans also often wore bracelets containing amulets to keep them from harm. Bracelets of gold or bronze were very common in Europe in the pre-historic times.

BRACES, *bra'-ces*, shoulder straps to hold up trousers, and, on board ship, ropes attached to the yard-arms to shift the sails to catch the wind more favourably, hence the phrase "to brace the yards," "to brace about," &c.

BRACHE, *brak* (Fr., *braque*, diminutive *brachet*), a term believed to be either of Celtic derivation from *brac* a spot, and hence, originally meaning a spotted hound, or else derived from the Latin *braccare* to track, and meaning a dog used in hunting for tracking game. It is frequently used by the older English writers to denote some kind of dog, nearly always a dog for hunting.

BRACHYLOGUS, *brak'-e-lo'-gus*, a systematic exposition of the Roman law, ascribed by

some writers to the Emperor Justinian, but it is more probably a compilation of the 16th century. The earliest known edition of the work was published at Lyons, in 1549, and four years afterwards, another edition was issued at the same place, with the title *Brachylogus Julis Civilis*. An edition by Professor Bocking, was published at Berlin, in 1829.

BRACKET, *brak'-et* (Lat., *brachium*, an arm), a term applied to any projection, either of wood or of stone, plain or ornamental, suspended against, or fastened to a wall, for the support of a clock, statue, lamp, &c. The pieces of wood that are often used to support shelves are so called. The term is also applied to gaslights that project from the wall. On shipboard, the knees which support the stern galleries are called brackets; and in gunnery, the expression is used to denote the cheeks of the carriage of a mortar.

In Typography, marks used by printers for inclosing words or sentences; thus []. They show that the words so enclosed are an interpolation, and not a parenthetical clause.

BRADSHAW'S RAILWAY GUIDE, *brad'-shaw*, a well known monthly periodical, projected by the late Mr. George Bradshaw, of Manchester, and which made its first appearance in December, 1841. Subsequently, information respecting steam navigation was added, and then Mr. Bradshaw attempted to do for the Continental railways what he had already done for the British, and in 1847 issued the first number of "Bradshaw's Continental Guide," a work still carried on.

BRAG, *brag* (Welsh, *bragiaw*, to brag), a game at cards, deriving its name from the efforts of the players to impose upon the judgment of their opponents by boasting of better cards than they possess. As many persons may play as the cards will supply, the dealer giving to each player three cards, turning up the last card all round. Three stakes also are put down by each player. The first stake is taken by the best card turned up in the dealing round. The peculiarity which gives the game its denomination occurs chiefly in winning the second stake. Here the knaves and nines are called "braggers," and all cards falling into the hands of the players assimilate to these. For example, one knave and two aces, two knaves and one ace, and two aces and one knave, all count three aces. The nines operate in the same way. The third stake is won by the person who first makes up the cards in his hand to thirty-one, with the privilege to draw, or not to draw, as he pleases, from the pack.

BRASENOSE COLLEGE, *braiz'-nose*, the name of one of the colleges of Oxford, founded in 1509, by the joint benefaction of William Smith, bishop of Lincoln, and Sir Richard Sutton, of Prestbury, in Cheshire. It was originally established for a principal and twelve fellows, natives of the old diocese of Lichfield and Coventry, failing whom natives of the diocese of Lincoln; and if none of these be eligible, then the most fit and learned that can be found in the university of Oxford. Eight fellowships were afterwards added, by various benefactors, between 1522 and 1586, subject to various restrictions; but, by an ordinance of the commissioners, under 17 and 18 Vict. c. 81, five of the fellowships were suppressed, and the rest thrown open. The scholarships and exhibitions of this college are numerous. Some of the open scholarships are of the value of

£80 per annum, and are tenable for five years. There are twenty-two Somerset scholarships, tenable for five years, and varying in value from £36 8s to £52. The Hulme exhibitions, seventeen in number, to which undergraduates of three years' standing are capable of being nominated, are each worth £35 per annum, besides £20 to be spent in books, to be selected by the principal. The origin of the name of the college is uncertain. There is a tradition that it was originally Brewing-house, which in course of time was corrupted to the present appellation; but Anthony Wood says that the building occupied the site of several hostels or inns, one of which had the sign of the Brazen Nose. A large nose, in brass, is placed over the gateway of the college.

BRASSARTS, *bras'-sarts* (Fr., *bras*, the arm), pieces of defensive armour which protected the arm from the shoulder to the elbow: when the front part, or outside only, of the arm was protected, the single piece that covered it was called a demi-brassart. The term brassart has also been applied to any ornament or badge worn upon the arm.

BRASSES, **MONUMENTAL**, *bras'-ses*, plates of brass of different forms, but for the most part consisting of representations of the human figure, or highly-ornamented crosses, let into slabs of stone or marble to serve as sepulchral records of the dead. The slab on which the brass was placed, formed in some cases, part of the pavement of the church or chapel, and in others, the upper part of an altar-tomb, or the back of the recess in which the altar-tomb itself was sometimes placed under a richly-carved canopy of stone, was carefully hollowed in accordance with the outline of the brass with which it was to be inlaid, to admit of the insertion of the metal sufficiently deep to bring its upper surface on a level with that of the slab. The brass was then bedded in pitch, and fastened to the stone with rivets. The forms in which the monumental brasses were designed were various, and differed greatly in point of decoration and elaborate execution. The figure of the person commemorated by the monument was generally placed in the centre of the slab, the features, armour, folds of the dress, &c., being marked by lines deeply cut into the metal, and filled with some black substance; sometimes a canopy supported by pillars surrounded the figure, adorned with armorial bearings, which were occasionally shown in their proper colours, the metal being cut away, and the field or charges being filled with coloured enamels, a white metal being inserted to represent *argent*. Inscriptions were added, either on labels of brass let into the stone outside the canopy, or on that part of the brass immediately below the feet of the figure. These brasses were often gilt or highly polished, and when first put down they must have presented a beautiful appearance, the burnished metal contrasting with the stone in which it was inlaid, which was generally of grey marble, or stone of a dark colour. On the Continent the whole surface of the stone is covered with a plate of brass, and the figures are shown in outline on it; and in this respect the Continental brasses differ from those found in this country. The most beautiful to be found abroad are in the churches of Belgium and the north of France, formerly known as Flanders, from which country the art is supposed to have been introduced into England by Flemish artists subsequently to the Norman conquest.

The oldest brasses known at present in this country are those of Sir John d'Abernoun, at Stoke d'Abernoun, 1277; Sir Roger de Trumpington, at Trumpington, near Cambridge, 1289; and Sir Richard de Buslingthorpe, at Buslingthorpe, Lincolnshire, 1290. This form of sepulchral memorial was much in vogue until the close of the 16th century, particularly in the eastern counties; but after this time brasses were less frequently used. Of the thousands of brasses that formerly existed in England little more than two thousand now remain; many were ripped from the slabs to which they were fastened, and destroyed at the suppression of the monasteries by Henry VIII., and many more during the civil war, when the Puritan soldiers of the Parliament wantonly destroyed numberless ecclesiastical memorials of bygone times. The following is the process used in taking facsimiles of brasses, or rubbings, as they are called:—White paper, tolerably thick and soft, which is made for the purpose, or cartridge-paper, is laid upon the brass, and rubbed over with heelball, a composition of beeswax, tallow, and lampblack. The incisions in the brass appear in white relief on a black ground, the heelball covering the paper with a dark coating in every part, except where the hollows in the brass offer no resistance to the rubber. Sometimes a paper of a dark colour is used, and the rubbing taken with an adhesive composition coloured with a yellow powder; and, by these means, a far better representation of the brass is obtained, as the yellow substance used imparts a metallic appearance to the paper, excepting where the incisions appear, which, from the dark colour of the paper used, resemble in colour, as well as form, the incisions in the brass itself. The earliest collection of impressions from monumental brasses was made by Sir John Cullum, the Rev. T. Cole, and Mr. Craven Ord. It was purchased by Sir Francis Douce, and given by him to the British Museum, where it may now be seen in the print-room.

BRAVI, *bra'-vi* (Ital., *bravo*, brave), is a name given in Italy to a certain class of individuals who engage themselves for money to perform the most hazardous enterprizes, frequently murder.

BRAVO! *bra'-vo*, a term of exclamation, adopted from the Italian, and signifying excellent, or well done. It is used in English without regard to gender or number, but the Italians use *brava* for the feminine, and *bravi* for the plural. The superlative is *bravissimo*.

BRAVURA, *bra-voo'-ra* (Ital.), a term generally applied to a song containing difficult passages and divisions, and requiring to be sung with great volubility and spirit.

BREACH, *breech* (Fr., *brèche*; Sax., *brecan*; Ger., *brecchen*, to break), a term used to denote an opening made in any part of the rampart of a citadel or fortress by a continuous cannonade directed against that particular part by the besieging force, in order to obtain an entrance over the ruins and debris of the shattered wall. As soon as the breach is effected, and the stones as well as the rubbish and earth behind the wall are brought by the firing into the form of a rough inclined plane, a storming party is told off, and the works are carried by assault.

BREADTH, *bredth* (Sax., *brad*), a term in Painting, used to denote a method of treatment

by which harmony of effect, and a judicious and proper blending of distant light and shadow, are obtained in the background of a picture, without entirely neglecting detail and throwing it into a hazy, confused, undefined mass, as was the custom of the early landscape-painters, in the background of whose pictures nothing could be distinguished.

BREASTPLATE, *breſt'-plait* (Saxon, *breost*, breast; Dutch, *plaat*, plate), a piece of defensive armour, made of steel or iron, formerly used to protect the chest. Breastplates, termed cuirasses, are still worn by the Life-Guards and Horse-Guards in this country. They are ornamental, but expensive, and far from useful, as they are not ball-proof. The breastplate was first adopted instead of chain-mail by the Florentines in the early part of the 14th century, and before 1400 its use had become general throughout Europe.

BREASTWORK, *breſt'-work*, a mound of earth, with a dry ditch in front, formed by the excavation from which the earth that makes the mound is taken, hastily thrown up for the protection of troops on out-post duty or in any exposed situation. A row of gabions filled with earth or of felled trees, with sods and earth in the intestines of the branches, is also a breast-work. (See EPAULEMENT, PARAPET.)

BREATH-FIGURES. If a clean surface of glass or any other polished substance be written on with a blunt-pointed instrument, and the surface be afterwards breathed upon, the characters written will become visible; or if the surface be first breathed upon, and the characters then marked upon it, they can be again made perceptible by breathing again upon the surface. These form what are called *breath-figures*.

BREECHES BIBLE. (See BIBLE.)

BREVE, *breuv* (Ital., from Lat., *brevis*, short).—This note (much used in ancient music) was, according to the notation of Guido d'Arezzo, equal in duration to two whole bars; its present value, however, is equivalent to two semibreves, four minims, or eight crotchets. It was formerly written of a square figure, but at the present time is the same shape as a semibreve, with the addition of two lines on each side. It is seldom or ever used now, except in cathedral music.

BREVIER, *bre-veer'*, a small kind of printing type, so called, probably, from its having been first used in printing breviaries; or perhaps it may have been derived from the Latin *brevis*, short, on account of its comparative smallness. (See PRINTING.)

BRIC-A-BRAC (Fr., odds and ends), old or ornamental curiosities collected for the adornment of drawing-rooms and boudoirs, the fashion for making collections of this character set in about the time of Queen Anne in this country, and is still in full operation. Many collections have sold for immense amounts.

BRIDE AND BRIDEGROOM, *bride*, *bride'-groom*. Various derivations have been given of these words. According to Tooke, bride is the past participle of the Anglo-Saxon verb *bredan*, to nourish or cherish, and groom the past participle of *gyman*, to take care of, guard, or attend; so that the bride is a woman nourished and cherished, and the bridegroom is one by whom she is attended, served, and protected. They denote respectively a newly-married woman

and man—married persons on the first day of their wedded life. The enjoyment of these titles being necessarily brief, they have always been associated with numerous ceremonies.

BRIDGEWATER TREATISES.

Francis Henry Egerton, the last Earl of Bridgewater, by his will, dated February 25th, 1825, directed certain trustees therein named to invest in the public funds the sum of £8,000; said sum to be at the disposal of the president for the time being of the Royal Society of London, to be paid to the person or persons nominated by him, who shall be appointed to write, print, and publish 1,000 copies of a work "On the Power, Wisdom, and Goodness of God as manifested in the Creation." It was judged preferable, in place of giving the whole sum to one man for one essay, to divide it into eight equal parts, to be given to eight different persons for as many distinct treatises on subjects connected with the original theme. The several subjects, with the distinguished authors selected to write upon them, were as follows:—1, The Adaptation of External Nature to the Moral and Intellectual Constitution of man, by T. Chalmers, D.D.; 2, Chemistry, Meteorology, and the Functions of Digestion, considered with reference to Natural Theology, by William Prout, M.D.; 3, On the History, Habits, and Instincts of Animals, by the Rev. William Kirby; 4, On Geology and Mineralogy, by the Rev. William Buckland, D.D.; 5, The Hand, its Mechanism and Vital Endowments, as evincing Design, by Sir Charles Bell; 6, The Adaptation of External Nature to the Physical Condition of Man, by John Kidd, M.D.; 7, Astronomy and General Physics, considered with reference to Natural Theology, by the Rev. William Whewell; 8, Animal and Vegetable Physiology, considered with reference to Natural Theology, by P. M. Roget, M.D.

BRIDLE, *bride'-l*. (See HORSE.) The word is used in the Scriptures in a figurative sense, to imply the restraints of God's providence, and of religion and humanity.

BRIGAND. (See BANDIT.)

BRIGANDINE, *brig'-an-deen*, a coat of mail worn by the Brigans, composed of small scales or pieces of metal sewn upon a closely-fitting tunic of linen or leather, and sometimes covered externally with the same material.

BRIGANS, *brig'-ans*, light armed irregular corps employed as mercenary soldiers in the Middle Ages. Their character for marauding and crimes of violence was the reason why in later times gangs of robbers have been known as "brigands."

BRISURE, *bre-zoor'* (Fr., *briser*, to break), an expression applied to any part of a parapet or rampart which is constructed in a direction different to that part of the fortification of which it forms a continuous portion. In field-works the term *brisure* is applied to the faces of a star fort, or those of any line of defensive works consisting of a series of re-entering and salient angles.

BRITANNIA, *brit-tan'-ya*, a female figure personifying Britain. She is represented on the coinage as seated on a rock, leaning on a shield and grasping a trident. The figure appears on a Roman coin of Antoninus Pius, of the 2nd century. It reappeared on the copper coinage of England in the reign of Charles II., and the famous Miss Stewart,

afterwards Duchess of Richmond, is supposed to have been the model.

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE, is an association of men of science, which meets annually in one of the larger towns of the United Kingdom, and has for its object "to give a stronger impulse and a more systematic direction to scientific inquiry—to promote the intercourse of those who cultivate science in different parts of the British Empire with one another and with foreign philosophers—to obtain a more general attention to the objects of science, and a removal of any disadvantages of a public kind which impede its progress." It is divided into several sections, each of which has a president, vice-presidents, secretaries, and council. The sections are as follows:—A. Mathematics and Physics; B. Chemistry and Mineralogy, including their applications to Agriculture and the Arts; C. Geology; D. Zoology and Botany, including Physiology; sub-section D. Physiological Science; E. Geography and Ethnology; F. Economic Science and Statistics; G. Mechanical Science. Life members pay, on admission, £10; annual subscribers pay £2 for their first year, and £1 every subsequent year; and associates pay £1 for admission to the meetings, &c. Life members and annual subscribers are entitled to a copy of the reports *gratis*. The association originated in a general feeling of the low state of science in England, and the first meeting, which was held at York in 1831, was brought about mainly through the instrumentality of Sir David Brewster. Large sums are annually expended by the association in grants to individuals to enable them to prosecute scientific inquiries in particular directions. The first meeting was held at York in 1831, and the fifty-first in the same city in 1881. The president, elected annually, is generally one of the most distinguished men of science of the time; but exceptions have been made in favour of persons distinguished by social position as well as acquirements, as Prince Albert, the Duke of Argyll, the Duke of Northumberland, and others. The addresses of the Presidents at the annual meetings usually take the form of a description of the progress of some special science, or of science generally.

BRITISH MUSEUM.—This great national institution owes its foundation to the will of Sir Hans Sloane, who, during a long and successful career as a physician in London, had accumulated, in addition to a considerable library of books and MSS., the largest collection of objects of natural history and works of art of his time. These, he directed, on his death, which took place in 1753, to be offered to the British Government for £20,000, which he believed to be not one-fourth of their value. Fortunately, the offer was at once accepted. The Act 26 Geo. II. c. 22, which authorised their purchase, directed the purchase also of the Harleian collection of MSS. for £10,000, and enacted that the Cottonian library, which had been given to the Government for public use in the reign of William III., should, with these, form one general collection. This Act directed that for these purposes the sum of £100,000 be raised by means of lottery, leaving sufficient funds available for the purchase and fitting up of premises for receiving them, and for originating a permanent income. In the spring of 1754, the mansion in Great Russell Street, then known as Montague House, was purchased as a repository for the whole, and between 1755 and

1759 the different collections were removed into it. Trustees were appointed, and the new institution received the name of the British Museum. It was first opened for public inspection on the 15th January, 1759. A nucleus having been formed, the museum rapidly increased, and it became evident that additional accommodation would be necessary. The arrival of the Egyptian antiquities from Alexandria in 1801, and the purchase of the Townley marbles in 1805, rendered additional accommodation indispensable, and a gallery, adequate for both, was completed in 1807. The donation by his Majesty Geo. IV. of the library of his father, George III., in 1823, led to active steps being taken for the erection of an entirely new museum, plans of which were ordered by the Government to be prepared. Sir Robert Smirke was accordingly employed to prepare the plans, and in 1828 the eastern wing of the present building was finished and occupied by the Royal library. The other portions of the new building were gradually proceeded with, and in 1847 the northern, southern, and western wings were finished. The style of architecture adopted is the Grecian Ionic. The principal front of the building is towards the south, facing Great Russell Street. It consists of a great central portico, with an advancing wing on either side, giving to the entire front an extent of 370 feet, the whole of which is surrounded by a colonnade consisting of 44 massive columns. The columns are five feet in diameter at their base, and 45 feet high; 12 stone steps, 120 feet in length, leading up to the portico. In the pediment are groups of allegorical figures by Sir Richard Westmacott, representing the development of science and art. On either side of the Museum are detached buildings, containing the residences of the chief officers of the establishment, giving an additional length of 200 feet to the front, and making its entire length 570 feet. The building, on its southern and eastern face, is inclosed by a renaissance iron railing, painted in imitation of bronze, and terminated by gilt spear-heads. An outer iron barrier, ornamented with curious conventional lions, runs the entire length of the front of the building. The building, as erected by Sir Robert Smirke, consisted of four ranges of apartments—east, west, north, and south, and inclosed a large open quadrangle in the centre. The southern range contains the great entrance-hall and staircase. The entrance-hall is 62 feet by 51, and 31 feet high. To the west of the hall is the principal staircase, leading to the galleries; the centre flight is 17 feet wide, flanked by two pedestals of grey Aberdeen granite. To the east of the hall in the southern range, on the lower floor, is a room containing the Grenville library; and to the west a saloon containing antiquities, and leading to the galleries of antiquities. The eastern range, besides some apartments appropriated to MSS., has a magnificent apartment, 300 feet long and 40 wide, containing the Royal library. The northern range of apartments is allotted to the general library, one of the rooms, the "main library," being 84 feet by 80, and having a striking appearance. The western range has one magnificent apartment, 300 feet in length, containing Egyptian and other sculpture. The whole of this extent of building on the lower or principal floor is of the height of 31 feet, and lighted by large windows which are at the height of nearly 14 feet from the floor. At the basement of the western portion of the building are galleries containing

the results of Assyrian and Babylonian explorations—statues, bas-reliefs, tablets of inscriptions, and fragments of records of inestimable value. Ascending the grand staircase we reach the upper floor, containing antiquities and natural history collections. The division of the southern range, to the west of the staircase, is occupied by antiquities, while botany occupies the division to the east. The western range is also occupied by antiquities; the northern partly by mineralogical specimens and partly by zoological objects, the latter also occupying the whole of the eastern range. The ranges of apartments on the upper floor, while of goodly dimensions, and well adapted for the purposes they serve, present, architecturally, no striking features. They are fitted up with glass cases against the walls, and table-cases in the centre, for the exhibition of the different objects. They are also lighted from above, an arrangement which, while it affords more wall-space for the exhibition of the objects, likewise admits of their being seen to greater advantage. Such was the great edifice planned by Sir Robert Smirke, which, at the time of its being finished, was regarded as the finest of the non-ecclesiastical buildings in the metropolis; but before it had reached completion it was found to be insufficient for the rapidly-increasing wants of the Museum. A gallery, or saloon, for the Elgin marbles was constructed to the west of the western range, and further accommodation for the library was obtained by building what is called "the arch-room," an addition to the western side of the northern wing. Various other additions have since been made, the most important of which is the new Reading-room, of which it is scarcely possible to speak in too high terms of admiration. It occupies the quadrangular space in the centre of the building, and is connected with the entrance-hall by a long passage. At least thirty feet of the quadrangle are left all round, to give air and light to the surrounding buildings. The plan of the new reading-room was suggested by Mr. Panizzi, the present principal librarian, and was carried out by Mr. Sidney Smirke, brother of the architect of the main building. The first parliamentary grant for its construction was voted in 1854, and it was opened in 1857, the entire cost, including the fittings and furniture, amounting to about £150,000. It is circular in form, and is constructed principally of iron, being covered by a magnificent dome, the largest, with one exception, in the world. The diameter of the dome is 140 feet, and the height from the floor to the top is 106 feet. The dome exceeds in diameter either that of St. Paul's or of St. Peter's at Rome, and is only surpassed by that of the Pantheon at Rome, which has a diameter of 142 feet. The room is lighted from above by a range of 20 windows, 27 feet high and 12 feet wide, running round the dome, and by a lantern-light, 40 feet in diameter at the top. The walls are lined with books, about 80,000 in number, to the height of 25 feet, accessible either from the floor or from two rows of galleries, which run round the apartment. The books accessible from the floor are chiefly books of reference for the use of the readers, who may consult them without applying to any of the attendants. About 20,000 volumes are in this way at the service of the readers. Each reader has a table 4 feet 3 inches long, carefully marked off, and fitted up with every convenience for reading and writing; and there is accommodation for about 350 readers. The electric light is now

used, so that the room can be kept open until eight o'clock in the evening in winter. *Contents.*—At first the Museum comprised three departments only—printed books, manuscripts, and natural history, the last including antiquities, works of art, &c. From time to time the number has been increased, so that now there are thirteen departments—viz., printed books, manuscripts, maps, prints and drawings, Greek, Roman, Oriental and Mediæval antiquities, zoology, botany, geology, ethnology, mineralogy. Over each of these departments is a chief officer, called a keeper; those of natural history having also a superior officer, called a superintendent. *The Printed Book Department.*—The original bequest of Sir Hans Sloane, amounting to about 50,000 volumes, soon received a valuable addition in the Royal library, which had been accumulated by the sovereigns of England from the time of Henry VII. downwards. This library was presented to the Museum by George II. in 1757. The collection itself was not large, numbering only some 10,500 volumes; but it was valuable, as comprising the libraries of some eminent individuals, as Archbishop Crammer and Isaac Cassaubon. At this time it also received the right to a copy of every work entered at Stationers' Hall. (*See BOOK TRADE.*) In 1823 the splendid library of George III., collected during his long reign, at an expense of about £150,000, was presented to the Museum by George IV. The most important of the recent additions was that bequeathed by the Right Hon. Thomas Grenville, in 1846, consisting of 20,240 volumes, collected at an expense of upwards of £54,000. Besides bequests and donations, the library has been largely increased by purchases, and is now one of the largest collections of books in the world, being estimated to contain upwards of 900,000 volumes. *Manuscript Department.*—The history of the manuscript department in general resembles that of the printed books, though its growth has been much less considerable. The Cottonian, Sloanean, and Harleian collections formed the nucleus of this department. The Cottonian collection, made by Sir Robert Cotton, who died in 1631, is particularly rich in Anglo-Saxon MSS. and documents referring to the early history of Britain. Many of the works formerly belonged to monastic libraries. The Sloanean collection consists of 4,100 volumes, relating chiefly to medical and natural history subjects. The Harleian collection is of a very miscellaneous character, including early civil and ecclesiastical records, MSS. of the ancient classics, illuminated missals, and poems, essays, ballads, plays, "in almost every modern language." It consists of about 7,600 volumes, besides 14,000 original rolls, charters, deeds, and other legal documents. In 1757, another collection was added—that of the MSS. of the Royal library of England, comprising about 1,950 volumes, many of which were obtained from the monasteries on their destruction. One of the most valuable documents of this collection is the *Codex Alexandrinus*. (*See ALEXANDRIAN MANUSCRIPT.*) The Lansdowne collection of 1,245 volumes was purchased in 1805, and the Hargrave collection, chiefly connected with law, in 1813. The Burney collection of 520 volumes is chiefly noted for its copies of the ancient classics. The Royal library of George III. brought with it about 440 volumes of MSS. Francis Henry Egerton, the last earl of Bridgewater, bequeathed to the Museum 67 MSS., together with £5,000 and £7,000; the interest of

the former sum to be spent in adding to the Egerton collection, and that of the latter to pay the salary of an Egerton librarian. In 1835 the Arundel collection, comprising 600 volumes, was obtained from the Royal Society. It is particularly rich in works bearing upon the early history of the people and language of this country, and contains a large assemblage of books of civil and canon law. These are the principal collections in this department; but there are numerous others obtained either as donations or by purchase, and containing many works of interest and value. The *Department of Prints and Drawings* comprises those bequeathed by the Rev. C. M. Cracherode, in 1799; by Mr. Richard Payne-Knight, in 1824; the Sheepshanks collection of Dutch etchings, purchased in 1836; and numerous smaller collections, obtained by gift or by purchase. Lately this department has been increasing as rapidly as any in the Museum, and it contains drawings by the most eminent Italian, German, Dutch, French and Spanish masters. The *Departments of Antiquities*.—The collection of antiquities, which was at first so small as to be regarded merely as an appendage to natural history, now occupies more space than any other department except the library. The first considerable addition to this department was made by the purchase of the collection of Greek and Roman antiquities made by Sir W. Hamilton. The Egyptian antiquities brought from Alexandria in 1801, and the townley marbles purchased in 1805, added largely to the collection. In 1815 an extensive series of sculptures, the frieze of the temple of Apollo *Epicurius* (or the deliverer), near Phigalia, in Arcadia, was purchased by the Prince Regent, and ordered to be deposited in the Museum. To these were added, in 1816, the Elgin collection, consisting chiefly of excellent sculptures from Athens, purchased by government from the earl of Elgin for £33,000. Since that time numerous additions have been made to this department, particularly in the Assyrian antiquities obtained by Mr. Layard, Mr. George Smith, Mr. Rassam, and others, and the sculptures and other antiquities obtained from the Mausoleum of Halicarnassus. The Egyptian sculptures are of basalt and granite, and some of them date from 2,000 years before Christ. They represent human and allegorical figures, usually of colossal size, and inscribed with hieroglyphics. The Grecian antiquities are contained in three apartments communicating with the Egyptian gallery, known as the Lycian, Elgin, and Phigalian galleries. The Lycian apartment contains sculptures brought from Lycia, 1842-46, by Sir C. Fellowes, and ranging in date from the subjugation of the country by the Persians, B.C. 545, to the period of the Byzantine empire. There is also a very curious and interesting collection of sculptures from Buddhist temples in Southern India. The Elgin and the Phigalian galleries are so called from containing the Elgin and Phigalian marbles, which constitute the most important part of their contents. The collection of Roman antiquities embraces an interesting series of busts of various dates, arranged in chronological order, running down one side of the gallery; while, on the other, are mosaics and other remains discovered in this country. In the Græco-Roman saloon are antiquities found in Italy, but which bear unmistakable evidence of Greek origin. Among the smaller collections is that of vases, comprising numerous specimens of Phœnician, Etruscan, Greek, and

Roman workmanship. The bronzes are numerous, comprising a great variety of articles of Greek, Etruscan, and Roman manufacture. The British and Mediæval collection illustrates the condition of the arts in our own country, from the time when arrow and spear-heads were made of flint, through the Anglo-Saxon and Norman periods, down to the Middle Ages, when works of art were produced which excite wonder and admiration even in the present day. The Ethnographical collection embraces articles now, or formerly, in use among nations other than European. Connected with the Antiquity department is the collection of coins and medals, which is very rich and valuable. They are arranged into ancient, mediæval, modern, and oriental, and are kept in one room, called the "Medal-room," no space having yet been found for exhibiting any of them to the public. The vast and comprehensive collection forming the *Zoological department* was removed in 1881 to a magnificent new building at South Kensington. It contains innumerable specimens of almost every animated creature, from the minute insect or tiny humming-bird, to the largest carnivora. The *Geological, Mineralogical, and Botanical departments* have also been removed, or are in course of removal, to South Kensington. The management of the Museum is vested in a body of trustees amounting to forty-nine in number. The three principal trustees are the Archbishop of Canterbury, the Lord Chancellor, and the Speaker of the House of Commons, in whom is invested the patronage to the various offices, except that of principal librarian. There are twenty-two other official trustees; nine are representatives of the families of distinguished donors; and fifteen are elected by the other trustees. The Museum is open free on every weekday in the year, except Ash-Wednesday and Christmas-Day; but only on Mondays and Saturdays are all the galleries open. Special tickets are required for the reading and print-rooms.

BRIZURE, *briz-ure* (Fr., *briser*, to break), an expression in Heraldry, used in reference to any charge that is in a broken condition, or bruised. The term *brizé* and *brisé*, are used synonymously.

BROACH, or BROCHE, *broche* (Fr., *broche*, a spit), a name given to a small steeple or spire that is built on the top of a tower, rising immediately on the summit of its walls, without being surrounded at the base by a parapet or battlements.

BROAD ARROW, in Heraldry, a charge representing an old-fashioned arrow-head, consisting of a hollow central spike from which side-pieces diverge in the form of the letter V, the outer edges of which are perfectly straight, and the inner engrafted. In heraldic phraseology, the broad arrow is commonly called a *Pheon*.

BROADSIDE, *broad'-side* (Ang.-Sax.), the discharging of the whole of the guns contained in one side of a ship at the same moment. When a vessel is pressed down on one side in the water by the wind, she is said to be on her broadside.

BROAD-SWORD, *broad'-sord*, a sword with a broad blade, designed chiefly for cutting, but capable of being used, like the rapier, for thrusting. When made so as to be employed in the latter way, as well as for cutting, it is called a sabre, and forms one of the weapons of the English and Continental cavalry soldier. The

modern representatives of the old English broadsword is the claymore, with which the Highland regiments in the English service are still armed. The English became more and more skilful in the use of the broad-sword, according as the wearing of suits of mail began to grow out. It was a common weapon in the days of Queen Elizabeth, and the "swash-bucklers," or "bullies," of that period achieved an unenviable notoriety for their skill in it. The Highlanders used the weapon until they were disarmed after the rising of 1745. With the Scotch Highland clans the broad-sword was termed the claymore, and it was their national weapon.

BROCHURE, *bro-shur'* (Fr., *brocher*, to stitch), is a term taken from the French, and used in the same sense as pamphlet; properly a stitched book.

BROCHUS, OR **BROCHOS**, *bro'-kus* (Gr., a snare), a medical term, denoting a noose, or a particular kind of bandage. It is also used to signify a person having inordinately thick lips, or whose teeth project forwards.

BROGUE, OR **BROG**, *brogue* (Irish), was a sort of rude, clumsy shoe, formerly worn by the native Irish and the Scotch Highlanders. From the manner in which the wearers of brogues pronounced the English language, the term came to be applied to their pronunciation.

BROMA, *bro'-ma* (Gr., *brosko*, I eat), denotes food of any kind that is masticated; and hence *bromatology* is a discourse on food, *bromagraphy* a treatise on food.

BRONZE, AGE OF, the name given by many archæologists to the middle period of the three into which they divide all that is known of prehistoric history, taking the designation—stone, bronze, and iron—from the materials of the weapons and implements found. (See ETHNOLOGY.)

"**Age of Bronze**," the title of a poem by Byron, satirising some predominant characteristics of the literature and society of his time.

BROOCH, *broche* (Fr., *brocher*, to stitch), an ornamental pin for fastening the dress, connected with an ornamental ring or disc. Brooches are of very great antiquity; and many antique brooches are of great beauty and design.

BROOKES' CLUB, a club established in St. James' Street, under the auspices of Fox and other leading Whig politicians, in 1764. It was not a propriety club, but a tavern of a high class. The first owner was Almack, who established the celebrated rooms known by his name (see ALMACK'S), and then came Brookes, who added money-lending to his other occupation, but who found that some of his visitors were cleverer in finance than he was, gave up the club and died poor. Among the eminent personages who were members of the club in its palmy days, were Gibbon, Burke, Sir Joshua Reynolds, Horace Walpole, Sir Philip Francis, George Selwyn, and Sheridan. Brookes' is still a resort of gentlemen attached to the Whig party.

BRUMAIRE, *bru-maire'* (Fr., *brame*, fog), the name given to the second month of the year in the French revolutionary calendar. It commenced on the 23rd of October and ended on the 21st of November, thus comprising thirty days, it received its name from the fogs that usually prevail about this time. The 18th of Brumaire.

VIII. year (9th of November, 1799), is celebrated for the overthrow of the Directory and the establishment of the sway of Napoleon.

BRUTE, *brute* (Lat., *brutus*), a term applied to those animals which act by instinct only, in order to distinguish them from men, who act by reason.

BUCCANEERS, *buk'-a-neers*, a class of pirates who infested the coasts of the West Indies and South America in the 16th and 17th centuries. The term is derived from a Caribbee word, *boucan*, which was applied to the flesh of cattle cured in a particular manner. The natives taught the process to the colonists, and the French, who adopted the word, formed from it the verb *boucaner*, and the *boucanier*; whence our term buccaneer. The buccaneers owed their origin to the jealousy of the Spaniards, who refused to allow any other nation to settle or trade in that part of the world. Enterprising adventurers of other countries were naturally adverse to submit to this, and the cruelties that were practised against those that dared to make their appearance there, were such that the adventurers formed themselves, about 1524, into an association, not merely for mutual defence, but for carrying out aggressive operations against the Spaniards. They were principally English and French. They lived in a state of constant warfare, carrying on hostilities independently of peace or war at home. They made frequent descents on the coasts, plundering and destroying the weaker towns and settlements. They had their principal settlement for some time on the island of St. Kitts, and afterwards on Tortuga, near St. Domingo; and, when not engaged in traffic with the Indians, or in excursions against the Spaniards, their principal occupation was the hunting of wild cattle, of which they made boucan. At a later period, many of them became logwood-cutters in the Bay of Campeachy. The Spaniards, however, continued to harass and murder them wherever they were to be found, and the enmity between them, instead of subsiding, only became more intense. By degrees, many men of good birth joined them, usually under an assumed name. The history of these men abounds in deeds of daring and high valour, but is also marked by deeds of revolting cruelty. Among the great leaders whose names figure in the history of buccaneering are the Frenchman Montbars, called the "Exterminator;" Peter of Dieppe, called "Peter the Great;" and Henry Morgan, a Welshman, famous for his daring march across the Isthmus of Panama, and his plunder of the city so named, afterwards knighted by Charles II., and made deputy-governor of Jamaica. A high state of honour seemed to have existed among them, and it is said that bolts, locks, and all kinds of fastenings, were prohibited among them, as implying a suspicion of their honour. In 1670, a treaty of peace was concluded between England and Spain, which provided for the extinction of the buccaneer warfare, but with little success. Between 1680 and 1689, buccaneering expeditions were made to the Pacific coast, and even to the coast of China, of which William Dampier, himself a buccaneer, has left a memorable record. The war between France and Britain, after the accession of William III. in 1688, effected what treaty could not accomplish, by causing a dissolution of the ancient alliance, and a war between the two parties. The treaty

of Ryswick, in 1697, and the accession of a French Bourbon prince to the throne of Spain four years later, brought about the final suppression of the buccaneers. After their suppression, a race of pirates, of a much more dangerous and desperate character, arose, and for a number of years preyed upon the commerce of all nations, until at length they were hunted down and exterminated. The name given to the buccaneers by the French is generally *flibustiers*, apparently a corruption of the English word freebooters, and whence the Americans have their term Filibusters.

BUCENTAUR, *bu-sen'-tawr* (Gr., *bous*, an ox, and *kentauros*, a centaur), was the name of the state galley of the Republic of Venice, in which the doges annually, on Ascension-day, "married the Adriatic." This custom is traced to a naval victory gained on Ascension-day 1177, by Doge Sebastiano Ziani over the emperor Frederick Barbarossa. The Pope presented Ziani, with a gold ring as a sign that on that day the Adriatic had been subjugated to Venice, "as a spouse to her husband." Annually, on Ascension-day, the doge, with great pomp and ceremony, and with a numerous attendance, proceeded in the *Bucentaur*, and dropped a gold ring into the Adriatic, with these words, "We wed thee with this ring, in token of our true and perpetual sovereignty." When the French took Venice, what is said to have been the ancient *Bucentaur* was burnt. It was a gorgeously fitted galley, about 100 feet long, and 21 broad, and manned by 168 rowers.

BUCKLER, *buk'-ler* (French, *bouclier*), a shield or weapon of defence worn on the left arm. It was of different sizes, and made of different materials. It was attached to the arm by two straps, one of which passed over the fleshy part of the fore-arm below the elbow, and the other was grasped in the hand. The Roman spearmen wore bucklers about four feet long by two in breadth, slightly curved in form, behind which they crouched before or after hurling the javelin; it was made of wood, strengthened with leather and metal plates and bosses. In mediæval times the buckler was generally round or oval. The Scotch target was a buckler of bull's-hide, ornamented with a rim, boss, and studs of metal; it was used to catch and turn away the blow of a sword or lance, and always formed part of the equipment of a Highlander.

BUCOLICS, *bew-kol'-iks* (Gr., *boukolika*), properly means pastoral, pertaining to cattle, and is the name given to a species of poetry which was common among the ancient Greeks, but has been little cultivated by the moderns. It represented rural affairs, and the life and manners of shepherds. The poems of Theocritus, Bion, and Moschus, and the Eclogues of Virgil, are of this class. The metre employed is the hexameter, or heroic; but the lines flow more easily here than in epic poetry.

BUFFER, *buf'-fer*, a rod with an enlarged end attached to a spiral spring of great strength, fixed to the striking parts of locomotives and railway carriages, in order to diminish the shocks arising from any sudden movement or stoppage.

BUFFET, *boof'-fai* (Fr.), anciently denoted a small apartment separated from the rest of a room, and used for containing china, glass-ware, &c. The name was afterwards applied to a cupboard or set of shelves, which was used for a like

purpose, but which has now been superseded by the modern sideboard. The term is now applied to the refreshment counter at a railway or other restaurant.

BUFFO, **BUFFA**, *boof'-fo* (*buffa*, a slap on the cheek), a term applied by the Italians to an actor and singer who takes the humorous and ludicrous parts in their operas. The epithet is also applied to the pieces themselves; as *opera buffa*, a comic opera.

BUFFONT, *buf-fo-n'*, a projecting covering of gauze or linen for a lady's breast, in fashion in and after the year 1750, a period when English ladies' costume was very ungraceful. The buffont entirely concealed the neck and bosom, and stuck out from beneath the chin like the breast of a pigeon. The buffont was worn in Paris as late as 1788.

BUFFOON, *buf-foon'* (Fr., *bouffon*), a low jester, a man who amuses others by rough tricks, antic gestures, broad jokes, and such-like. In Italy the term is not always used in a contemptuous sense; there are two sorts of buffoons, —the *buffo cantante*, who has frequently an important part to play, requiring considerable musical talent, and the *buffo comico*, whose part consists more in acting. In England the name was sometimes applied to those persons who were employed as fools at court or at the tables of great men.

BUGLE, *bu'-gl* (Ang.-Nor.), formerly a brass instrument without any keys, used only by hunters and for military purposes; within the last few years, however, it has been so much improved by the addition of six keys, that it now is of the greatest service both in solo and concerted music, and is very commonly found in orchestral and military bands.

BULBUL, *bool'-bool*, an Eastern name for the nightingale, much in favour with poets. In India the name is given to a little bird (*Pycnonotus hamorrhous*) of brilliant plumage, and remarkable for its pugnacity. It is nearly allied to the thrush.

BULGARIAN LANGUAGE, *bul-gai'-ri-an*, is a branch of the Slavonic, and is divided into two dialects—the old and new Bulgarian. The old Bulgarian is the richest in inflections, and its literature is the oldest of any of the Slavonic tongues. The new Bulgarian has arisen since the destruction of the kingdom in 1392, when the language came to be mixed with those of neighbouring nations, particularly of Wallachia and Albania. The new Bulgarian can scarcely be said to possess any literature; but it has a large collection of popular songs.

BULL ON THE STOCK EXCHANGE, the name bull is applied to a class of speculators. (See BEAR.)

BULL, IRISH, a blunder in speaking, arising generally from too great haste and a comical confusion of ideas. As an illustration, an Irishman stopped a stranger in the street, supposing him to be an acquaintance. On discovering his mistake, he exclaimed, "When I first saw you, I thought it was you, then I thought it was your brother, and now I find it's neither one nor the other."

BULLA (Lat., *bulla*, a round boss or stud), a small round ornament made of gold or silver, worn by the children of the ancient Roman nobility.

The bulla was worn until they arrived at the age of fourteen, and was placed upon the neck or breast. It was a distinctive mark of free birth.

BULL-BAITING, *bull-bait'-ing*, (Du., *bulle*, bull; Goth. *beitan*, to bait), is the barbarous sport of baiting bulls with dogs. The animal was usually tied to a stake, with the points of his horns muffled, and then attacked by the dogs, who tore him to death for the amusement of the spectators. It is said to have been introduced as an amusement into England about the year 1209.

BULLETIN, *bul'-let-in*, is a term derived from the French, where it originally signified a ballot used in elections; and hence a small piece of paper on which one gave his vote. Afterwards it came to signify an official report, giving an account of the actual condition of some important affair intended for the information of the public. When persons of high rank are dangerously ill, daily bulletins are issued by the physicians respecting the state of the patient, and to such notices the term is now almost limited.

BULL-FIGHTS, or combats between men and bulls, are a very ancient kind of amusement, and were common in Greece several centuries before the Christian era. In Rome, under the emperors, they were also common, and afterwards they became popular in many of the other countries of Europe. At present, Spain is the only country in Europe where they are held, but in Mexico they are also popular. They were abolished in Spain, in 1784, "except for pious and patriotic purposes," but revived by Joseph Bonaparte for the sake of pleasing the people. In all the larger towns of Spain bull-fights are frequent. In Madrid the season lasts from April to November, during which time bull-fights take place at least once a week. The combats are held in a large amphitheatre called the *Plaza de toros*, open at the top, and with seats rising one above another round the circle, and capable of accommodating from 10,000 to 12,000 spectators. The area is divided into an outer and inner circle, separated from each other by a strong fence, the latter being the place where the combats take place, the former affording shelter to the men on foot when hard pressed by the bull, in order to which there are a series of openings in the fence just large enough to allow a man to pass through. The actors on the arena are the bull, usually of the fierce Andalusian or Castilian breed; the *picadores* or combatants on horseback, who wear fancy dresses in imitation of the costume of ancient knights; the *banderilleros*, who are armed with sharp goads with coloured streamers; the *chulos*, who wear very bright-coloured cloaks; and the *matador* who dispatches the bull. The contest begins with the *picadores*, who are each armed with a lance, and mounted usually on a very worthless horse. Their object is to wound the bull with the lance, and then to avoid his onset. The horse is frequently gored in the encounter, and when a *picador* is closely pressed, the *banderilleros* and *chulos* rush in and withdraw the bull's attention by pricking him with their darts and waving their cloaks. When the bull begins to flag, the *picadores* withdraw, and are succeeded by the *banderilleros*, who are armed with *banderillas*, or darts, about two feet long, ornamented with a coloured flag. These the *banderillero* sticks into the bull behind the horns when it is preparing to toss him. After a time the third act of the play commences, and the *matador* enters upon the

stage, attended by some *chulos* as assistants. Over his left arm he has a red mantle, behind which is concealed a sword which he has in his right hand. He waits the charge of the bull, and, if well skilled, dexterously plunges the sword between the shoulder and the blade, and the animal drops dead at his feet. The *matador* is loudly cheered, so also is the bull, if he happens to get the best of the contest, and kill the *matador*. Twenty minutes is the time usually taken to terminate the contest, and eight or ten bulls are often dispatched in a single day.

BULL'S EYE, the black or gold mark in the centre of a target. (See **TARGET**.)

BULWARK, *bul'-wark*, in a man-of war, the boarding above the upper deck fastened to the outside of the timber-heads and stanchions. Bulwarks protect the men in action from the fire of the enemy. In ordinary vessels they are simply a protection from the waves, and prevent articles from being washed overboard. The name of bulwark was formerly applied in military art to ramparts and bastions.

BUNGALOW, *bun'-ga-lo*, an East-Indian term for a sort of house or villa, with a thatched roof. Bungalows are occupied by Europeans, and vary in size and accommodation according to the fancy or requirements of their owner. They generally consist of a ground-floor, surrounded by a verandah; but some are of two stories. Military bungalows are for the accommodation of soldiers in cantonments, and are on the same extensive scale as barracks.

BUNKUM, *bunk'-um*, is an Americanism, applied to a speech delivered merely for the purpose of conciliating popular favour, or gaining popular applause; a species of oratory more commonly to be met with in America than in most other countries. The term is said to have originated in the name of a county in North Carolina, the representative of which said in Congress after a long bragging speech, that he was only "speaking for Buncombe."

BURDEN, *ber'-den*, is that portion of a song which is repeated at the close of every verse or stanza. It is derived from the French *bourdon*, a drone bass. The adoption of a burden in vocal music is very ancient, and it is still occasionally introduced with very pleasing effects.

BURGONET, *bur'-go-net*, a helmet which formed part of the armour worn at the close of the 17th century. It was invented by the Burgundians, and from them received its name. The Burgonet took the form of the head more closely than the helmets in previous use, and frequently had overlapping plates of steel that protected the neck. A serrated ridge usually ran from the summit, and a plume of feathers either stood up from the apex of the helmet, or one long flowing plume was inserted in the pipe at the back. This plume streamed behind the wearer, frequently descending lower than the waist.

BURKING, *burk'-ing*, murdering a person with the intention of selling the body for dissection. Before the passing of the Anatomy Act in 1832 there were not sufficient legal means by which bodies could be procured for anatomical purposes. Previous to that time the prices for subjects became very high, and tempted men to commit some horrible crimes. Among these were two men named Burke and Hare, who, as asso-

ciates, are believed to have murdered no less than sixteen persons solely for the purpose of handing their bodies over to the surgeons. Burke was tried in 1828, at Edinburgh, Hare being received as king's evidence against him. To *burke* a project or a speech comes from this word, and means bringing to a sudden end.

BURLESQUE, *bur-lesk'* (Ital., *burlesco*, to jest, mock), denotes a style of composition in which the humour consists in a ludicrous mixture of things high and low, of high thoughts clothed in low expressions, or *vice versâ*, of ordinary or base topics invested in artificial dignity. The burlesque style may exist in conversation as well as written composition, and in acting and drawing. It is, however, most common in poetry. Burlesque appears to have been unknown among the ancients; but specimens of it are found in most modern languages, particularly the Italian. Butler's "Hudibras" is a well-known example in English of literary burlesque, and "Bombastes Furioso" of dramatic burlesque. Planché was a very successful writer of burlesque, depending chiefly on witty dialogue, clever parodies, and good music. More modern authors of burlesque rely upon violent puns, comical dancing, female attractions, outré dresses, and brilliant scenery. Messrs. H. J. Byron, Burnand, Farnie, and Reece, are the most successful of these authors; and a more refined and subtle form of humour has been employed by Mr. W. S. Gilbert.

BURNETT PRIZES, THE, *bur'-net*, were founded by Mr. Burnett, a merchant in Aberdeen, who, dying in 1785, left a part of his fortune to found these prizes. The interest was to accumulate for forty years at a time, and was then to be divided and given, as two prizes (of not less than £1,200 and £400), to the authors of the best two essays on "The evidence that there is a Being, all-powerful, wise, and good, by whom everything exists; and particularly to obviate difficulties regarding the wisdom and goodness of the Deity; and this, in the first place, from considerations independent of written revelation; and, in the second place, from the revelation of the Lord Jesus; and from the whole to point out the inferences most necessary and useful to mankind."

On the first competition, in 1815, the first prize, of £1,200, was awarded to Dr. W. Laurence Brown, principal of Marischal College, and the second, of £400, to the Rev. J. Bird Sumner, afterwards archbishop of Canterbury. On the second competition, in 1855, 208 essays were given in, the judges being the Rev. Baden Powell, Henry Rogers, and Isaac Taylor. The first prize, of £1,800 was adjudged to the Rev. Robert Anchor Thompson, master of the hospital of St. Mary the Virgin at Newcastle-upon-Tyne, and the second, of £600, to Dr. John Tulloch, principal of St. Mary's College, St. Andrew's.

BURNT STONES, antique cornelians found in ruins, and seeming to have been acted on by fire, having a dull appearance externally, but exhibiting a beautifully red colour when held up to the light. They are highly prized.

BURSARY, *ber'-sa-re* (Fr., *bourse*; Lat., *bursa*, a purse), is a sum of money allowed to a student at a university to enable him to prosecute his studies, or to devote himself to literary pursuits afterwards. The money is usually the annual proceeds of a bequest left by some private individual for that purpose.

BUSH-RANGERS. Australian highway-

men, mostly escaped convicts, or ruffians, who robbed gold-diggers and travellers.

BUSKIN, *bus'-kin* (Ang.-Sax.), the English translation of the Latin word *cothurnus*, which was a kind of boot, covering the foot, and rising above the calf of the leg, sometimes even reaching as high as the knee. The sole of the buskin was generally of an ordinary thickness, but sometimes it was made thicker than usual by the insertion of slices of cork. The object here was to add to the stature of the wearer; for which reason it was worn by the Greek and Roman tragedians, in order to give them a more heroic appearance, as the *soccus*, or low-heeled shoe, was worn by the comedians. Hence, in English, the *buskin* and *sock* (*soccus*, a flat-soled shoe), have come to be synonymous with tragedy and comedy. It was also worn by ladies for ornament. The Melpomene in the Villa Borghese is represented with the buskin, and it forms part of the recognized hunting costume of Diana.

BUST, *bust* (Ital., *busto*), a term in Sculpture by which is meant a representation of the head, neck, shoulders, and breast, with, most frequently, the arms cut off midway above the elbow. The derivation of the word is uncertain. By the aid of the plaster cast the sculptor is enabled to produce a very accurate portrait of the original, and in this branch of art English sculptors have attained a high degree of excellence. The term is also applied to the bosom of a woman.

BUTLER'S "ANALOGY." In 1736, Dr. Joseph Butler (afterwards Bishop of Bristol, Dean of St. Paul's, and Bishop of Durham), clerk of the closet to Queen Caroline, published "The Analogy of Religion Natural and Revealed to the Constitution and Course of Nature," which has taken its place as a classic in the religious literature of England. Bishop Wilson, who contributed a preface to a modern edition, says: "Bishop Butler is one of those creative geniuses who give a character to the times. His great work has fixed the admiration of all competent judges for nearly a century, and will continue to be studied so long as the language in which he wrote endures. The mind of a master pervades it. There are in his writings a vastness of idea, a reach and a generalization of reasoning, a native simplicity and grandeur of thought which command and fill the mind." The arguments employed in the book tend to prove that there is a general analogy between the principles exhibited in the course of nature, and those of the Divine government as revealed in the Scriptures, and that analogy leads to the conclusion that the author is the same. Butler himself quotes a pregnant sentence from Origen, which might be taken as the text of his great work:—"He who believes the Scriptures to have proceeded from Him who is the author of nature, may well expect to find the same sort of difficulties in it as are found in the constitution of nature." In the introductory chapter, Butler says:—"The analogy here proposed to be considered is of pretty large extent, and consists of several parts, in some more, in others less, exact. In some few instances, perhaps, it may amount to a real practical proof, in others not so; yet in these, it is a conformation of what is proved other ways. It will undeniably show, what too many want to have shown them, that the system of religion, both natural and revealed, considered only as a system, and prior to the proof of it, is not a subject of ridicule, unless that of nature be

so to." A more comprehensive or better estimate of Butler than that contained in the epitaph on his monument in Bristol Cathedral could hardly be quoted:—"Others had established the historical and prophetic grounds of the Christian religion, and that sure testimony of its truth which is found in its perfect adaptation to the heart of man: it was reserved for him to develop its analogy to the constitution and course of nature; and, laying his strong foundations in the depth of that great argument, there to construct another and irrefragable proof, thus rendering philosophy subservient to faith, and finding in outward and visible things the type and evidence of them within the veil." Butler's literary style is unworthy of his great intellectual power. Mainwaring, the author of a "Dissertation on the Composition of Sermons," says of Butler:—"He had neither the gift of eloquence nor the art of expressing himself with grace or ease;" and Sir James Mackintosh, while speaking of the "Analogy" as the most original and profound work extant in any language on the philosophy of religion," adds, "No thinker so great was ever so bad a writer." There have been many editions of the great work, and some of the most eminent divines have employed their talents in commentaries and expositions. Recently a very cheap and carefully edited edition, with introduction, analyses, and notes by the Rev. F. A. Malletson, has been issued by Messrs. Ward, Lock, & Co.

BUTTRESS, *but'-tress* (Fr., *buttée*, from *aboutir*, to abut), a piece of masonry or brickwork projecting from the face of a wall, and giving it support and increased strength and solidity. In Grecian and Roman architecture, the buttress was not used, but its place was occupied by a pilaster, or some slight projection in that form. The buttress was introduced with Gothic architecture in the Mediæval period, and, by degrees, it was formed into a very ornamental addition to the building to which it was attached. The Norman buttress was a flat projection, finished with a slanting coping, jutting slightly over the face only, and not over the sides. Sometimes the Norman buttress is found in a semi-circular form. The chief characteristic of the early English buttress is, that it projects from the face of the wall to a much greater extent than the Norman buttress, its depth being equal to, and sometimes more than its breadth. It generally consists of two or three divisions or stages, each division being less in depth than the one immediately below it, and finished with a water-table, or stone bevelled to present a single inclined surface, or a series of surfaces, like shallow steps, finished in a triangular or pointed form, resembling the gable-end of a house, and the roof projecting over it. The buttresses of the Decorated English style are similar, in general form, to those of the Early English period, but are always divided into stages, ornamented with panels and niches, which are some times filled with figures and finished with crocketed canopies; the top is often finished with an elaborately-carved finial or pinnacle. Examples of Decorated English buttresses will be found at Exeter Cathedral, York Minster, and Waltham Cross. The Perpendicular English buttress differs from the buttresses already mentioned in being divided into a great number of stages, with panels in front and at the sides, filled with rich tracery. They are higher, and have small pieces, in the form of a bracket or capital of a column, rising

from the wall-plate at the top of each stage, which serve as pedestals for small statues. Flying buttresses are buttresses built against the wall of the side-aisles of cathedrals and large churches, and connected with others immediately in their rear, projecting from the walls of the nave, with stone-work in the form of a semi-arch, which is sometimes plain and sometimes elaborately carved and perforated with tracery of rich design. Flying buttresses were introduced at the close of the Early English period.

BUTTS RIFLE, *buts* (Fr., *but*, a mark), a term applied to mounds of earth, against which targets are placed. In the old days of archery localities where archers resorted for practice, took a name from the butts erected there, as Newington Butts, in the south of London. The term is now also applied to a screen, generally made of earth-work and masonry, for protecting the markers during rifle-practice at a target. It is placed about fifteen yards in front of and to one side of the target, and in such a position that the markers can easily see the face of the target from it.

BUXOM, *buk'-sum* (Ang.-Sax., *bucsum*, easily bended to the will of another), originally signified obedient or obsequious; and in an old form of marriage, the bride promised to be obedient and buxom to her husband. At present it is used in the sense of gay, lively, brisk, associated with plumpness.

BYZANTINE ARCHITECTURE, *bi-zan'-line*.—New styles of architecture were gradually produced in Rome and Byzantium, after the division of the old empire, to suit special requirements. In the eastern empire was developed the Byzantine style, the parent stock of Arabian architecture, from which all public buildings of ancient date in northern Africa and Spain derive their principal characteristic features, the pointed arch excepted, which influenced the architecture of the East, and even spread westwards, as may be seen in many a noble structure in Venice, Italy, and southern France. In our own times, Byzantine architecture is the ecclesiastical style of architecture in Russia, the prevailing style of the Greek church, as Gothic architecture is peculiar to the cathedrals and churches of Roman Catholic and Protestant countries in Western and central Europe. Byzantine architecture may be considered to have been originated by Constantine the Great, who commenced rebuilding Byzantium in the year 324, and gave the city the name, Constantinople, which it now bears. Constantine spared no expense to make his new city the most magnificent in the world; public works of all kinds were erected with marvellous rapidity, from the designs of architects who had followed the Emperor from Rome, and adorned with sculpture gathered from the fallen cities of Greece and Asia Minor. At first, the palaces, temples, churches, baths, and basilicas, which were erected, were based on the plans, and embraced all the characteristic features of similar buildings at Rome; but, to carry out his grand designs, Constantine caused schools to be established for the study of architecture, in which men were trained for the profession, who gradually mingled new and original features with those of the style that had been introduced from the West, and formed a style of architecture peculiar in itself, and eminently adapted to the requirements of the ritual of the Greek church, although bearing evident traces of the source from which



BYZANTINE PAINTING, SCULPTURE, COSTUMES, DECORATIONS, ETC.

it originally sprung. There are four periods of Byzantine architecture, including that of its decline, from the conquest of Constantinople by the Venetians in 1204, to the overthrow of the Eastern Empire by the Turks in 1453. The first, or transition period, in which it gradually lost its similarity to the architecture of Rome, then known as Romanesque, ranges from 325 to 525. The churches were then built in the form of the Roman basilica (*see* BASILICA), with a central nave and long side-aisles, a portico at the western end, and an apse at the east end. The second period, when it had assumed an entirely distinctive character, extends from 525, shortly after which Justinian assumed the purple, to the close of the 8th century; and the third from this epoch to 1204 when Baldwin, Count of Flanders, and his Venetian allies, attacked the Greeks, and gained temporary possession of Constantinople. The prevalent form of the churches of the second period, or period of pure Byzantine architecture, is that of the Greek cross: the central square, formed by the intersection of the arms of the cross, is covered by a dome or cupola, and the spaces which represent the arms, are also covered by semi-cupolas, or, in many cases entire ones. This form, however, was not invariably adopted in the smaller churches. The constant use of the apse (*see* APSE) is a very marked feature of the ecclesiastical edifices. The cathedral of St. Sophia, now the principal mosque at Constantinople, built by Justinian in 532, is considered to be one of the finest existing specimens of Byzantine architecture: good examples of the style of the second period are also to be seen in the churches of St. Sergius, and St. Irene, at Constantinople. The best examples of the third period are the churches of St. Mark at Venice, and St. Pantocrator at Constantinople: in this period greater attention was paid to external decoration, but the churches were much smaller in every respect. The church of St. Anthony at Padua, the cathedral at Aix-la-Chapelle, the churches of Ravenna and Pisa, and that of St. Frant at Périgieux, in France, are also Byzantine in character.

BYZANTINE ART.—When Constantine removed the seat of empire from Rome to Constantinople, many artists who had gained repute in Rome sought to acquire an extension of renown in the new imperial city. There they founded a Byzantine school of art, to which the painters and sculptors of the West resorted when the savage hordes of the North poured over the sunny plains of Southern Europe, and gave the *coup de grâce* to the waning power of the Western empire. In Byzantium, this school preserved the characteristics of ancient art during the sombre dawn of the Mediæval period, when the culture of the fine arts languished and almost died out in other parts of Europe, or became debased and devoid of spirit and beauty. It also struck out a new and original path in idealizing and representing with artistic force and excellence, both with the pencil and the chisel, the graces and virtues of the Christian faith, in opposition to the efforts of the artists of ancient Greece and Rome, who skillfully expressed the attributes of heathenism by portraying the perfection of the human form, animated indeed by human passions and desires,

but uncontrolled and unsoftened by the elevating influence of that faith which they knew not, but the spirit and expression of which the Byzantine artists so thoroughly felt and comprehended. In both painting and sculpture, their works were executed in a careful and painstaking manner; and mechanical perfection was attained in the manipulation of their subjects and the way in which the separate details were laboriously worked out. Their figures are full of dignity; their form, attitude, and expression, betoken them as being conceived in a spirit truly Christian, while the accompanying details were marked by a symbolism pregnant with meaning; as when the garments of our Saviour, resisting the Spirit of Evil in the hour of his temptation, are painted black, as typical of error and evil, and the Virgin Mary is represented with a black complexion, to signify the bitter woe that wrung that loving mother's heart. In Mosaic-work the Byzantines excelled; the domes of their churches, as well as the pavements and the walls in parts, being beautifully inlaid in elaborate and exquisite tracery, often grotesque in form, glowing with brilliant colours. They possessed goldsmiths and jewellers of no mean order, who were animated by tastes and feelings truly artistic, as may be seen in the magnificent chalices, candelabra, and crosses of the Byzantine period, encrusted in many cases with jewels of great value, that have remained to our own times; they were also exceedingly skilful in carving in ivory, and in the illumination of copies of the Holy Scriptures. Byzantine art retained its pre-eminence until the close of the 12th century, when it gradually declined, until the conquest of the Eastern empire by the Turks ended the existence of the school that had flourished so long and so successfully. The influence of Byzantine art may be plainly traced in the various schools of Italy, particularly in those of Sienna and Florence, as exemplified in the painting of St. Peter and St. John, by Pierrolino (1100), in the Academy of Fine Arts of Sienna, and that of the Virgin and Child, by Guido di Ghezzo (1221), in the church of San Domenico, in the same city, and in many of the works of Cimabue, Giotto, and Leonardo da Vinci, who flourished at Florence at a later period.

BYZANTINE HISTORIANS, is a name given to certain Greek writers who have written on the history of the Byzantine empire. They are divided into three classes:—1, Those whose works refer exclusively to Byzantine history; 2, those who write on general history, treating also at some length on Byzantine history; and 3, those who have written on Byzantine architecture, antiquities, customs, &c. The works of the Byzantine historians were collected and published by Dabbe, Fabrotti, Dufresne, and others, in 42 vols., Paris (1647—1811). A new edition of the Byzantine historians, entitled "*Corpus Scriptorum, Historiæ Byzantiæ*," was commenced at Rome, 1828, by Nieubhr, with the assistance of Bekker, Dindorf, Schopen, Meinecke, and others, and many volumes of it have since been published.

BYZANTINE RECENSION, is the name given to the text of the Greek New Testament as propagated within the limits of the patriarchate of Constantinople.

C.

C, the third letter and second consonant of our alphabet, has two sounds, being pronounced like *k* before the vowels *a, o, and u*, and like *s* before *e, i, and y*. This letter is first met with in the Latin alphabet, where it occupies the same place as the gamma or *g* in the Greek: and, indeed, originally it had the same sound; *legione*, with the early Romans, being written *leciones*. Subsequently the *g* sound became hardened to that of *k*, and that was the only pronunciation that it afterwards had with the Romans, as we know from the circumstance that whenever the Greeks had occasion to adopt Latin words with *c* into their language, they always represented it by *k*; as *Cicero, Kikero*; *Cæsar, Kaisar*. As regards sound, *C* is a superfluous letter in English, as its place could always be supplied either by *k* or *s*. As a numeral, *C* stands for 100, *CC*, for 200; and so on.

In Music, it is the name of one of the notes of the gamut. Placed after the clef, it intimates that the music is in common time, which is either quick or slow as it is joined with *allegro* or *adagio*; but if alone, it is usually *adagio*. If the *C* be crossed or turned, the first requires the air to be played quick, the last very quick. *C major* is the first of the twelve major keys in modern music; being the natural scale, it has no signature. *C minor*, the tonic minor of *C major*, has three flats for its signature—*B, E, and A*.

CAB, *kab* (Fr), an abbreviation of the word *cabriolet*. It is a small light carriage for one horse, which generally plies for hire. The Hansom cab holds two passengers, and the driver is seated behind; the Clarence cab holds four passengers with the driver on the box in front.

CABINET, *kab'-i-net*, a case containing drawers and slides for the preservation of objects of natural history, coins, and other rare and valuable objects. The name is sometimes applied to large collections of such matters occupying rooms or even galleries.

Cabinet Picture, a highly finished picture of small size, to be kept in a cabinet, or hung in a small room, as being suited for close inspection. The term "cabinet size" is given to photographic portraits larger than the ordinary *carte de visite*.

CABLE-MOULDING, an architectural term for a moulding cut in form of a rope, the twisting being shown very prominently. It was greatly used in the later-Norman period.

CABLING, a moulding often used to partially fill the hollows in the flutes of columns and pilasters in classical architecture.

CABOCHED, or **CABOSSED**, *ka-botch'-ed*, a heraldic term signifying the exhibition of the head of an animal full in face on a shield or escutcheon without any part of the neck being shown.

CACHE, *kash* (Fr., a lurking-hole), holes, or places of concealment dug by travellers in the ground to hide some of their goods. The construction of a cache is a work of great ingenuity and labour. A hole six or eight feet deep, and several feet broad, is first dug; the articles to be concealed are then put in, and the hole is filled up, the surface being carefully replaced, so as to show no sign. Landmarks are, however, noted, and the locality of the cache is easily found when the travellers return. Caches are made principally in the Far West by travellers or settlers

who, when crossing the Rocky Mountains, wish to take as little luggage with them as possible.

CACOETHES, *kak-o-e-thes* (Gr., *kakos*, bad, *ethos*, disposition), a bad custom, disposition, or habit; as the *cacoethes scribendi*, the desire for scribbling. An incurable cancer is also called a *cacoethes* in medicine.

CACOGRAPHY, *ka-cog-ra-fy* curious spelling by which the correct sound is preserved, but the letters are ludicrously incorrect, as "i phansy," for "I fancy." One of the most notable instances is Thackeray's "Yellowplush Papers."

CACOPHONY, *kakof-o-ne* (Gr., *kakos*, bad, *phone*, voice, sound), in Grammar, is a fault of style, consisting in the bringing together of two letters or syllables which produce a harsh or disagreeable sound, or in the too frequent repetition of the same letters or syllables.

CADENCE, *kai'-dense* (Fr., *cadence*; Lat., *cadens*, from *cado*, I fall), signifying the end of a phrase or the conclusion of the composition. In vocal or instrumental music, cadences are used for the same purpose as stops in writing; that is, to indicate the terminations, either of the part into which a composition is divided, or the conclusions of entire pieces; as in writing, stops mark the divisions, or completion of a sentence. There are three kinds of cadences—viz., the whole or perfect or final cadence, which consists of three chords and finishes the harmony of the tonic, and is always used at the end of a composition; the half-cadence, also called the imperfect cadence, used to terminate an idea or phrase, like the semicolon or colon in writing, and showing that though a division is necessary, yet a continuation will follow; and thirdly, the interrupted cadence, in which the preparation is made for a full or final cadence, but another harmony is suddenly introduced. There are said to be 130 ways of making an interrupted cadence.

CADENCY, *ka-den'-sy* (from the Lat., *cado*, I fall), a term in heraldry signifying the marks by which the shields of the younger sons of a family are distinguished from those of the elder and of one another, thus, in the family of the "First House," or first son, the shield of the eldest son bears a mark called a "label;" the second son, a "crescent;" the third son, a star, known as a "mullet;" the fourth son, a "martlet;" and so forth. In the family of the second son, the eldest has a crescent, with a "label" upon it; the second son, a crescent with a crescent upon it; the third son, a crescent with a star or mullet upon it, &c. In the third house, or family of the third son, the first has a mullet with a label on it, the second, a mullet with a crescent on it, and so forth throughout the entire family.

CADMEAN LETTERS, *kai'-me-an*, the name given to the sixteen letters that originally composed the Greek alphabet, and which, according to tradition, were brought by Cadmus from Phœnicia, whence they were called *grammata Kadmeia*, Cadmean letters. In reality, they are found to agree, in form and order, with the Samaritan or Phœnician letters.

CADUCEUS, *ka-du'-se-us*, the winged staff or sceptre of Mercury, said to have been presented to him by Apollo in return for the seven-

stringed harp which Mercury had given to him. Amongst the ancient Greeks and Romans, the caduceus was the staff of office borne by ambassadors and heralds. It was from this circumstance, doubtless, that it became a symbol of Mercury, the messenger of the gods. Originally, it was a simple olive-branch; then a white or gilded staff, round which was added in a later age the representation of two twisted snakes, with two out-stretched wings above them. Mercury was considered to be the patron of commerce, and the rod of the caduceus signified power, the serpents prudence, and the wings diligence. It is still used in modern times as the symbol or representative of commerce.

CÆSAREAN OPERATION, *se-zu'-re-an* (Lat., *cæsus*, from *cædo*, I cut), is the extraction of a child from the womb by an incision through the parietes of the abdomen and the uterus. It is also called *hysterotomy*, from *hystera*, the womb, and *tome*, a section. This operation has been practised from very ancient times. There are three cases in which this operation may be necessary:—1, When the fœtus is alive and the mother dead, either in labour or in the last two months of pregnancy; 2, when the fœtus is dead, but cannot be delivered in the usual way, on account of the deformity of the mother, or the disproportionate size of the child; 3, when both mother and child are alive, but delivery cannot take place, from any of the above causes. The operation is one of great danger, but there are many instances of both mother and child have lived after its performance; indeed, there is a case on record of one woman having submitted to the operation seven times. Shakespeare's reference to the subject in connection with the character of Macduff is well known.

CÆSTUS, *sees'-tus* (Lat.), a rough gauntlet made of raw hide, and strengthened with lead or plates of iron. It was used by the wrestlers both to protect their hands and wrists and to give force to their blows. The cæstus was also a kind of girdle made of wool, which the husband untied for his bride the first evening after marriage.

CÆSURA, *se-zu'-ra* (Latin, *cædo*, I cut), in Greek and Latin poetry denotes the cutting off of the last syllable of a word from those that precede it, and carrying it forward into another foot. It always renders the syllable on which it falls long, though it may properly be short. In modern poetry it denotes the pause which is introduced into a verse or line to render the versification more melodious, and to aid the recital. (See **BLANK VERSE**.)

CÆTERIS PARIBUS, *se'-te-ris par'-i-bus* (Lat., other things being alike or equal), is a term frequently employed by mathematicians and philosophers to denote the equality of all other points or circumstances except those at issue; as when it is said that the velocity and quantity of blood circulating in a given time through any section of an artery will, *cæteris paribus*, be according to its diameter and its nearness to, or distance from, the heart.

CAHIER, *ka-heer'* (Fr., a paper book, or a number of sheets of paper loosely tied together), in French history denotes the reports and proceedings of certain assemblies; as those of the clergy, the states-general, &c.

ÇA IRA, *sa é-ra* (Fr., it will go on), the re-

frain of a well-known song, by which, during the first French Revolution, the lower classes were inflamed and incited to deeds of cruelty. The famous *Marseillaise* was directed against foreigners, and the *ça ira* against the aristocrats, the domestic enemies of the revolution.

"Ah, ça ira, ça ira, ça ira!
Les aristocrates à la lanterne!"

The melody is older than the words, having been a favourite air with queen Marie Antoinette.

CAIRN, OR **CARN**, *kairn*, a word of Celtic origin, denoting a heap or pile. The term is commonly applied to the artificial piles of stones, usually of a conical form, that are to be met with in various districts. They appear to have been raised for various purposes, as to distinguish marches or boundaries, to commemorate battles; but, most commonly, they were intended to mark the burial-places of distinguished individuals. The bones found in cairns are generally half-burned, and are inclosed in *cists*, or stone chests, or in urns of earthenware. Various articles in common use, as flint arrow-heads, stone hammers, &c., or ornaments, are frequently found along with the bones. The size of these cairns is believed to have been, in general, in proportion to the rank or popularity of the deceased; for not only would the people of the district assemble to testify their respect to him, but, so long as the memory of him existed, not a passenger went by without adding a stone to the heap. Some of the larger cairns are *chambered*—i.e., have internal galleries or chambers. The most remarkable of this class is at New Grange, near Drogheda, in Ireland. It is about 400 paces in circumference, and 80 feet high, and is supposed to contain 180,000 tons of stones. Cairns belong chiefly to stony countries; where stones are scarce, earthen tumuli take their place. They are to be found throughout the British islands, in France (especially Brittany), and Norway.

CAIUS COLLEGE (*keys*), Cambridge. (See **GONVILLE** and **CATUS COLLEGE**.)

CALANDO, *ka-lan'-do*, an Italian musical term implying a diminution by degrees from forte to piano.

CALANDRONE, *kal-an-dro'-ne*, a small wind-instrument, or pipe, in favour with the peasants of Italy, for the production of simple melodies.

CALDARIUM. (See **BATH**.)

CALDERON'S DRAMAS.—Pedro Calderon de la Barca, the most eminent dramatic author of Spain (1600-1681), produced 122 dramas, and 72 religious pieces, known as *Autos Sacramentales*. Of the religious dramas, 16 are classed as religious, and display the author's highest powers. Shelley has translated *The Wonder-Working Magician*, which in some respects resembles Goethe's *Faust*. Nineteen dramas are historical; 24 mythological and romantic; 16 melodramas, or tragic comedies; and 25 are comedies of intrigue, exhibiting amazing ingenuity in the plots. A recent critic, Mr. R. Garnett, says, "After Shakespeare and Aristophanes, no dramatist has understood so well how to transport his reader or spectator to an ideal world. . . . The art of Calderon is the most perfect embodiment conceivable of all the romantic and chivalrous elements of Spanish national life; there is

not, perhaps, such another example in literature of the wonderful power of poetry to eliminate all baser matter and present the innermost idea of a society in untarnished brightness. Calderon is also the most perfect representative of the state of feeling induced by unconditional allegiance to the Catholic Church at the critical moment, when the scales of faith and knowledge are yet in equilibrium." About twenty of Calderon's dramas have been translated into English, chiefly by Mr. Fitzgerald and Mr. McCarthy.

CALEMBOUR, or CALEMBOURG, *kal'-em-boor*, a French expression for a pun, said to have been taken from a certain Westphalian, Count Calemberg, who visited Paris in the reign of Louis XV., and became notorious for his blunders in the language.

CALENDAR, or KALENDAR, *kal'-en-dar* (Gr., *kalein*, to call), a written catalogue or table of all the days of the year, arranged in the order of days and weeks, to which are generally added certain astronomical indications, such as the hours of the rising and setting of the sun, the entrance of that star into each sign of the zodiac, the commencement of the seasons, the phases of the moon, as well as the particular epochs of religious and civil acts. The calendar being in reality but the chronological table of the year, has necessarily varied with different peoples, according to the divers forms of their year. These different forms will be found explained in the articles, **DAY, WEEK, MONTH, YEAR**. The most remarkable calendars are:—

Assyrian and Babylonian.—The year was approximately made to consist of 360 days, divided into twelve months of 30 days each; an intercalary month was inserted every six years, and the others were counted in by the priests when necessary.

Hebrew.—The year of the Jews was a lunar one, being composed of 354 days divided into twelve months, which had alternately twenty-nine and thirty days. In order to make this lunar year accord with the solar year, the Hebrews supplied, seven times in nineteen years, an intercalary month of twenty-nine days. Each month was divided into periods of seven days, or weeks, the Saturday being celebrated under the name of Sabbath.

Egyptian.—The year was divided into 365 days, divided into twelve months of 30 days each, with five supplementary days at the end of the year.

Greek.—The calendar of the Greeks, whose year was likewise lunar, and composed of twelve months containing alternately twenty-nine and thirty days. To accommodate this year to the solar one, the Greeks added every two years a supplementary month. Each month was divided into three decades.

Roman or Julian Calendar.—The Roman year under Romulus, contained only ten months, or 304 days. Under Numa, however, the year was extended to twelve months, or 355 days; but, although nominally thus defined, the calendar did not in reality fix anything more precise than the commencement of the months and seasons; and through the ignorance or negligence of the priests, the utmost derangement subsequently arose. To obviate this confusion, Julius Caesar, in 46 B.C., effected a reform, by the introduction of the Julian Calendar, in which the length of the solar year was fixed at 365 days, to which was added, every four years, a day called bissextile. (*See BISSEXTILE, or LEAP YEAR.*) This calendar was adopted not only by the Romans but also by all the modern nations, and remained in use until the introduction of the calendar of Gregory XIII. The Roman year had twelve months, each being divided into unequal parts by the Calends, Nones, and Ides (*see these words*).

Gregorian.—This mode of distributing time was the result of the reform inaugurated by Gregory XIII., and first came into operation in October, 1582. This

calendar principally differed from the preceding in deducting 10 days of that year in which it first came into operation, it having been ascertained that the error of 11 minutes of the Julian year had amounted, in 1582 years, to 10 whole days. In order to prevent a recurrence of this error, it was ordered that every year ending a century should not be counted as a leap-year, excepting the 400th year, and the multiples of 400. Thus, 1200 and 1600 were leap-years, 1800 was not, nor will be 1900; 2000, as being a multiple of 400, will be a leap year, as well as every 400th year afterwards, in addition to every fourth year when it does not end a century. The Christian peoples, while they preserved the names and the order of the months of the Romans, rejected their manner of dividing the months and counting the days; adopting, instead, the Hebrew system of dividing the month into weeks. The Greeks and Russians have refused to adopt the Gregorian calendar, retaining the Julian, or what is called in this country the "old style." (*See STYLE.*) Hence it is necessary to deduct 12 days from the new style, in order to make it agree with the old. The reason for there being at the present time a difference of 12 instead of 10 days between the old and new modes of reckoning, is due, as has already been explained, to the fact that, in the Gregorian calendar, the years 1700 and 1800 were not counted as leap-years, while, according to the old, or Julian mode, they were so estimated.

French Republican.—This was adopted by a decree of the National Convention of October, 1793. The year was therein divided into 12 months, of 30 days each, 5 complementary, or "Fête" days being added at the end of each year. The commencement of the year was fixed at midnight of the 22nd of September (the autumnal equinox), and, retrospectively, the new year, or Year I. of the Republic, began on the 22nd of September, 1792. Fresh names were given to the months and the days; the titles of the months being—for the autumn season, Vendémiaire, Brumaire, and Frimaire; for the winter season, Nivôse, Pluviose, and Ventôse; for the spring season, Germinal, Floréal, and Prairial; and for the summer season, Messidor, Thermidor, and Fructidor. Each month was divided into a period of three decades (10 days each), each day bearing, instead of the name of a saint, that of an agricultural product, implement, or animal useful in cultivating the earth. This calendar remained in force during thirteen years, and was abolished by a decree of the emperor Napoleon I., on the 1st January, 1806.

Positive.—Comte drew up for the use of his followers (*see POSITIVISM*) a calendar of thirteen months, naming them—Moses, Homer, Aristotle, Archimedes, Cæsar, Paul, Charlemagne, Dante, Gutenberg, Shakespeare, Descartes, Frederic, and Bichet; and on every day of the year an eminent person was commemorated.

CALENDS, or KALENDS, *kal'-ends* (Lat., *calendæ*), in Roman chronology denoted the first days of every month, being so named from *calo*, I call or proclaim, because then the priests proclaimed the number of fasts or sacred days to be observed in the month. The Romans divided their month into three periods—the *Calends*, *Nones*, and *Ides*. The calends always fell on the 1st of the month, the nones on the 5th, and the ides on the 13th, except in the months of March, May, July, and October, when the nones fell on the 7th, and the ides on the 15th. The days of the month were then reckoned backwards; thus the 30th of April was the day before the calends of May, or the second day of the calends, the 29th the second day before the calends, and so on to the 13th, when the ides commenced, the 12th being the day before the ides, and the 4th the day before the nones. As the Greeks did not reckon their days in this way, and, therefore, had no calends, the Romans had a proverbial expression, *ad Græcas calendæ* (on the Greek calends), meaning never. The calends were usually the time for settling accounts, interests, &c.; hence they were sometimes called *tristes calendæ*. The

book in which an account of the interest was kept was termed *calendarium*.

CALEPIN, *kal-e-pan*(g), a French term, denoting a collection of literary or scientific notes or information, a pocketbook in which one inscribes his observations or reflections, or a lexicon. The word is derived from Calepino, a learned lexicographer of the 15th century, who took his name from his native place, Calepio, in Italy, and was the author of a famous polyglot dictionary.

CALIGÆ, *kal'-e-je* (Latin, *caliga*, a kind of shoe worn by the Roman soldier), in the early ages of the Church, the term was applied to a half-boot, which formed part of the insignia of a bishop, and was emblematical of the spiritual warfare upon which he had entered.

CALIGRAPHY, *kal-ig'-raf-e* (Gr., *kalos*, beautiful, *graphe*, writing), is the art of beautiful writing. Previous to the invention of printing, this art was greatly fostered, and many admirable specimens of it still exist.

CALIPPIC PERIOD, OR CYCLE, *kal-ip'-ik*, receives its name from an Athenian astronomer, Calippus, by whom it was first observed, about B.C. 330. About a century before, it had been discovered by Meton that in nineteen years there are 235 lunations, when the new and full moons return to nearly the same day and hour. Calippus observed that this would be more nearly the case by taking four Metonic cycles or periods of nineteen years, and then subtracting one day. The Calippic period was thus 76 years, less one day.

CALISTHENICS, *kal-is-then'-iks* (Gr., *kalos*, beautiful *sthenos*, strength), the science or practice of exercising the limbs and body for the purpose of strengthening the muscles and acquiring a more graceful carriage. (See GYMNASTICS.)

CALIVER, *kal'-i-ver*, a hand-gun in common use about 1600, that could be discharged from the shoulder without a rest. It was fired by means of a matchlock. The barrel was shorter than that of the old musket, and much lighter, and the diameter of its bore was made according to a fixed standard; hence the name of the weapon, corrupted from calibre. (See CALIBRE.)

CALI YUGA, *kal'-le yu'-ga*, a Hindoo era, taken by the Brahmins as the commencement of the present age of the world, called by them the "iron age." It dates from 3102 B.C., the period of the Deluge. To bring any date of the Cali Yuga era to its corresponding date according to the Christian era, we must subtract 3102 from it. The year, according to this era, commences in April.

CALL, a whistle used by the boatswain and his mates to summon the sailors to their posts, and to direct them about the various employments of the ship. A gold call was formerly the insignia of an admiral. In the military service a call is a signal on the bugle, or trumpet.

CALOTTISTES, OR LE RÉGIMENT DE LA CALOTTE, *ka-lot'-eestes*, the name of a society of wits and satirists in France during the reign of Louis XIV., at the head of which were Torsac and Aimon, officers of the royal guard. They took their name from *calotte*, a little cap, such as was worn by the monks to cover the tonsure. If any public character committed a ludi-

cious or stupid blunder, the society would send him a patent to wear the calotte as a protection for the weak part of his head. The arms of the society consisted of various insignia of folly, and it had for its motto, *C'est regner que de savoir rire* (to make laughter is to reign). As it numbered among its members many persons of high rank, it was possessed of considerable power, and, at length, became so audacious as to attack even royalty itself. It was dissolved by the minister Fleury. In 1725, an amusing book, "*Mémoires pour servir à l'Histoire de la Calotte*," was published at Basel. At the time of the Reformation, the term *Régime de la Calotte* was applied to priestly rule.

CALTROP, *kal'-trop* (Sax., *coltrappe*), a piece of iron consisting of four sharp spikes projecting from a common centre in such a manner that three of the points will rest on the ground and the fourth stand upright in whatever way it may be thrown from the hand. Caltrops are sometimes thrown down before infantry or artillery, to check a charge of cavalry, or in a breach to impede the advance of the storming party; they are, however, far more injurious to cavalry than infantry. Caltrops are sometimes called crow's-feet. The name is derived from that of a thistle, of the genus *Tribulus*, growing in the south of Europe, the burs of which are armed with strong spines, which inflict wounds upon the feet of man and beast.

CALUMET, OR PIPE OF PEACE, *kal'-u-met*, is the name given by the North American Indians to a tobacco-pipe of a particular construction. The bowl is of polished marble, and the stem is of strong reed, 2½ feet long, and adorned with locks of women's hair and feathers. When used in treaties and embassies, the Indians fill the calumet with the best tobacco, and present it to those with whom they have concluded any important business, smoking out of it themselves after them. To present it to strangers is a mark of hospitality, and to refuse it would be considered an insult.

CALYDONIAN BOAR, *kal-e-don'-i-an*, in Greek legend, an immense and ferocious boar, sent by Diana to ravage the dominions of Æneus, King of Calydon, the ancient capital of Ætolia, who had omitted to make a sacrifice to the goddess. Meleagrus, the son of Æneus, with the aid of Theseus, Jason, and other heroes, and (according to some versions) of his mistress Atalanta, killed the monster.

CAMARILLA, *kam-a-ri'l-la* (Spanish, a little chamber), a word borrowed from Spain, and employed in modern political language to signify the influence of secret and unaccredited councillors in matters of state or government. Under Ferdinand VII. of Spain, the name was applied to those flatterers by whom that monarch was mostly influenced, and who were generally men without talent, and opposed to every kind of reform. The word was also much used in France during the reign of Charles X.

CAMAYEU, *kam'-a-yu*.—A painting executed in different shades of one colour is said to be *en camayeu*. This term may be applied to drawings in sepia and Indian ink, and even to those in chalk and pencil. It is synonymous with the expression "monochrome;" but it was also originally applied to paintings in which more than

one colour appeared, although one particular tint prevailed, and almost concealed the others.

CAMBRIDGE MANUSCRIPT. (See BEZÆ CODEX.)

CAMBRIDGE, UNIVERSITY OF, *kaini'-brij*, one of the two highest educational institutions of England, is situated in the town of Cambridge, from which it takes its name. Its early history is involved in much obscurity, and many untrustworthy stories are related. It may, however, be taken as authentic that a regular system of education was introduced in 1110, when Joffrid, abbot of Croyland, having sent some learned monks, well versed in philosophy and the other sciences, to his manor of Cottenham, near Cambridge, they went daily into that town, where, in a hired barn, they gave lectures in the sciences, which were attended by a large concourse of students. The earliest charter known to have been granted to the University is that of 15 Henry III. (1229). At this time, the students lodged in the houses of the citizens, and the extravagant demands for rent gave rise to numerous disputes between the scholars and townsmen; and hence the king ordained that *taxors* be appointed—namely, two masters and two respectable and lawful men of the town, to fix the rent to be paid by the students for lodgings at a reasonable rate. Afterwards, hostels or halls began to be established, where the students lived at their own charges, under the superintendence of principals, who were responsible to the chancellor for the conduct of their pupils. The first endowed college was that of St. Peter, founded in 1257; and, as the colleges began to increase, the hostels disappeared. A list of the colleges and halls, with dates of foundation, &c., is given below. The university obtained its first formal charter of privileges from Edward I. in 1291, and subsequent charters, with various privileges, were granted by Edward II., Edward III., Richard II., and Henry IV. Additional privileges were conferred upon it by Henry V., Edward IV., Henry VII., Henry VIII., and Queen Elizabeth, in the third year of her reign. By Act of Parliament, 13 Eliz. c. 29 (1570), all preceding grants, from Henry III. downwards, were confirmed, and the University was declared to be incorporated by the name of "the chancellor, masters, and scholars of the University of Cambridge." In 1614, James I. conferred upon it the right of sending two members to the House of Commons. The university "is a union of colleges or societies, devoted to the study of learning and knowledge, and for the better service of the Church and State." Each college is a body corporate, bound by its own statutes, but is likewise controlled by the paramount laws of the university. Each of the colleges or departments in this literary republic furnishes members both for the executive and legislative branch of its government. All persons who are masters of art or law, or doctors in one or other of the three faculties—viz., divinity, law, and physic—having their names upon the university register, have votes in this assembly or senate. Their meetings are held in the senate-house. The present university statutes were confirmed by the Queen, by order in council, of the 31st July, 1858. All university laws are approved by an elected body, called the council, which consists of the chancellor, vice-chancellor, four heads of colleges, four professors of the university, and eight other members of the senate,

chosen from the electoral roll published by the vice-chancellor. Two of the heads of colleges, two of the professors, and four other members of the senate, are elected by the persons whose names are on the electoral roll, and they all hold office for four years. The principal officers intrusted with the executive are the chancellor, high steward, vice-chancellor, commissary, and assessor. The chancellor (generally some person of high rank and social distinction) is the head of the whole university, and presides over all cases relating to that body. In him is vested the sole executive authority within the precincts, except in matters of maiming and felony. The office is tenable for two years, or for such longer period as the tacit consent of the university may choose to allow. The high steward has special power to take the trial of scholars impeached of felony within the limits of the university, and to hold and keep a list according to the established charter and custom. The vice-chancellor (practically the most important person in the university) is elected annually on the 4th November by the senate, and his office embraces, in the absence of the chancellor, the execution of his powers, and the government of the university, according to her statutes. The commissary is an officer under the chancellor, and appointed by him, who holds a court of record for all privileged persons and scholars under the degree of M.A. The assessor is an officer specially appointed to assist the vice-chancellor in his court. The public orator is the voice of the senate upon all public occasions. The two proctors, who must be masters of art or law of at least three years' standing, or bachelors of divinity, are elected annually, and their especial duty is to attend to the discipline and behaviour of all persons *in statu pupillari*, and to search houses of ill fame. The registry sees to the due form of the "graces," and registers them in the university records. The two moderators superintend the examinations of the candidates for honours in the mathematical tripos. The two pro-proctors are appointed to aid the proctors. The three esquire bedells attend the vice-chancellor, whom they precede with their silver maces upon all public occasions and solemnities, and summon to the chancellor's court all members of the senate. The annual income of the university is derived from various sources, the principal of which are the following:—The rectory of Burwell and a farm at Barton, producing about £1,000 per annum; the fees at matriculation and for degrees, and the profits of the university press, in all probability amounting to between £6,000 and £7,000. The funds are managed by the vice-chancellor, or by specific trustees, and the accounts are examined annually by three auditors, appointed by the senate.

Functions of the University.—The university, as a body, discharges four important duties: 1, affords instruction, by means of a staff of professors, who deliver lectures; 2, holds examinations; 3, confers degrees, prizes, and scholarships; 4, maintains discipline.

University Professors.—*Divinity*, Regius, Lady Margaret's, Norrisian and Hulsean Professors. *Mathematics*, Lucasian (mathematics), Plumian (astronomy and experimental philosophy), Loundean (astronomy and geometry), Sadlerian (pure mathematics), *Moral Science*, Moral Theology or Casuistry, Modern History, Political Economy, *Natural Science*, Botany, Geology, Mineralogy, Chemistry, Jacksonian Professor of Natural and Experimental Philosophy; Experimental Physics. *Laws*, Regius Professor of Laws, Downing Professor of the Laws of England, Whewell Professor of International Law. *Medicine*, Regius

Professor of Physic, Anatomy, Zoology and Comparative Anatomy, Downing Professor of Medicine. *Languages and Literature*, Regius Professor of Greek, Latin, Regius Professor of Hebrew, Sanskrit, Adams Professor of Arabic, Lord Almoner's Professor of Arabic. *Archæology*, Disney Professor. *Fine Art*, Slade Professor.

University Examinations.—The college examinations are preparatory and subordinate to those of the university. Besides a constant attendance on lectures, undergraduates are examined in their respective colleges yearly, or half-yearly, in those subjects which have engaged their studies; and according to the manner in which they acquit themselves in those examinations, their names are arranged in classes, and those who obtain the honour of the first places receive prizes of different value. The university's previous examination (the "little go") must be passed by all students before they can be admitted to degrees. It is held in June and December of each year. At the end of the second year of residence there are special examinations. Many students are not candidates for honours, but are known as pollmen, that is, candidates for the ordinary degrees only. The honour examinations held annually for the degree in arts are of a much severer character. The mathematical examination is widely celebrated, and it is claimed "has given to this university its character of the mathematical university *par excellence*." Commencing on the Monday next after the 20th of December, it continues for four days, then stops for an interval of ten days, and then occupies five days more. On the last Friday in January the list of the successful competitors is published, the names being distributed into three classes, known as wranglers, senior optimes, and junior optimes; the highest wrangler being commonly known as the senior wrangler and ranking as the first university man of the year. The three classes constitute what is known as the mathematical tripos; and there are, besides, examinations for other triposes—classical, moral and natural science, theological law and modern history, Semitic languages and Indian languages. By success in these examinations degrees in arts are obtained.

Prizes and Scholarships.—There are 49 university scholarships and exhibitions, varying in value from £15 to £100 per annum, conferred on students who have been successful in passing examinations for them; and a great number of prizes and medals, some of considerable value.

Degrees.—The university confers the degrees of Bachelor and Master of Arts. To take an ordinary B.A. (Bachelor of Arts) degree, a student must reside three terms or three years, the M.A. (Master of Arts) degree follows three years after. Degrees in divinity, law, laws and literature, and medicine and music are also conferred. Degrees may be conferred without residence or examinations on persons of certain rank or dignity, as bishops, privy councillors, noblemen, &c. All persons proceeding to the degree of M.D. are required to produce certificates of having been engaged in medical study during five years.

Public Institutions of the University.—All members of the university have the privilege of admission to the Library, the Fitzwilliam Museum (also open under special regulations, to the general public), the Observatory, the Geological Museum, the Museum of Comparative Anatomy, the Museum of Zoology, the Mineralogical Museum, and some smaller collections.

Parliamentary Representation.—The university returns two members to Parliament, the constituency being members of the senate (see above).

University Terms.—The period of residence in the University is measured by terms; that is, the divisions of the year during which the business of the University is carried on. There are three in each year: the Michaelmas, or October term, beginning on the 1st of October and ending on the 16th of December; the Lent term, beginning on the 13th of January and ending on the Friday before Palm Sunday; the Easter, or May term, beginning on the Friday after Easter day and ending on the Friday after Commencement day, which is the last Tuesday but one in June.

Colleges.—There are seventeen colleges—foundations established and endowed at different times, by private munificence. For a considerable time it was impossible to be a student of the university, without

being a member of some college; but this restriction has been removed, first by a statute permitting the establishment of "hostels," and, later, by a statute regulating the admission of non-collegiate students. Every college has a head who is generally styled master, but in some cases provost or president. Then come the fellows, the majority of whom are in holy orders, and who, with the master, constitute the governing body in most colleges, though in some the government is in the hands of a section of this body, known as the Seniors. The value of a fellowship is between £200 and £300 a year, and vacancies are filled up by election. Every college has tutors and lecturers who superintend the work of education. The following is a list of colleges (more particularly treated under the various headings), with the dates of foundation:—

St. Peter's.....	1257	Jesus	1496
Clare	1326	Christ's	1505
Pembroke	1347	St. John's	1511
Gonville and Caius	1348	Magdalen	1519
Trinity Hall	1350	Trinity	1546
Corpus Christi	1351	Emmanuel	1554
King's	1441	Sidney Sussex	1598
Queen's	1448	Downing	1800
St. Catherine's	1473		

Students.—There are four classes of students—fellow-commoners and noblemen, pensioners, sizars, and the more distinguished students who are elected scholars on the foundation of their colleges. The first class dine at the Fellows' table, wear embroidered gowns and pay heavier fees; the pensioners are the great body of students who pay for their own dinners, and for their chambers; the sizars are poor students, who are admitted at lower charges; the scholars are elected by examination from the pensioners and sizars, are placed on the foundations of the colleges, have rooms and commons free, and other emoluments. A student is admitted on the boards of a college, either by a personal examination, or through a recommendatory certificate signed by a master of arts of the university. If the certificate be deemed satisfactory, the name is at once entered on the college boards, and the student usually comes into residence at the October term following, when the academical year begins. During the first year of his course the undergraduate is a "freshman," during the second a "junior soph," and during the third a "senior soph."

Non-Collegiate Students.—Youths can be entered as students without being attached to any particular college. They are under the superintendence of a board elected by the senate of the university, represented by a censor, to whom the student is required to apply for direction as to studies, residence, and other matters. The non-collegiate student is not required to pass any examination on entrance, but he must be sufficiently prepared to have a reasonable prospect of being ready to pass the university examinations in which he intends to be a candidate. He is subject to the usual discipline of the university as to hours at night, and the wearing of academical dress, and is under the supervision of the proctors as well as of the censor of the body to which he belongs; and he is moreover required to call at the censor's office and sign his name in a book kept for that purpose on five days in each week. Some of the colleges open their lectures to non-collegiate students on payment of very moderate fees. An establishment known as Cavendish College has been formed, and nearly 50 non-collegiate students reside there.

Female Students.—Two colleges have been recently established for female students, who may pass voluntary examinations, but cannot compete for honours. Girton College, about two miles distant from Cambridge, originated in a college opened at Hitchin in October, 1869. In 1869, a new building at Girton was opened, and since then additions have been made, and accommodation is afforded for 60 students, with lecture rooms and residence for the mistress. Newnham Hall, nearer Cambridge, has accommodation for 33 students, the principal and a resident lecturer. At Girton, the fees for education, board and lodging, amount to 100 guineas for the three terms which comprise the academical year. At Newnham, the annual charge is about 75 guineas, and some students of scanty means receive assistance. (See GIRTON and NEWNHAM COLLEGES.)

Local Examinations.—In 1853, the University of Cambridge, following the example of Oxford, adopted a scheme by which annual examinations of persons, not members of the University could be held at various central places, in the United Kingdom; and in 1865 girls were admitted to the examinations. Higher examinations for women above eighteen years of age were instituted in 1869, and made permanent in 1871; and were thrown open to men in 1873. University lecturers are sent to deliver lectures and conduct classes in populous places. (See LOCAL EXAMINATIONS.)

CAMDEN SOCIETY, *kam'-den*, an association formed in London, in 1838, for the purpose of publishing historical and other manuscripts of antiquarian or literary interest. The name was given in honour of William Camden, the historian.

CAMEO, *kam'-e-o* (Ital., *camei*).—When gems are cut in relief, they are called cameos; but the term is generally given to small sculptures executed on those precious stones which have two layers of different colours. The exterior of these layers forms the relief, and the interior the background. Imitation cameos are also made from shells, some of which are exquisite works of art. The shells generally employed are the bull's-mouth, which give a pinkish-white relief, with an underlayer of red, resembling the sardonyx. The black-helmet gives a dark onyx ground, and the queen's-conch a deep pink. As these shells have three layers of colour, the tints required for the different figures and representations can be toned and modified. Cameos are also made of artificial substances, and glass was employed for this purpose by the ancients. The origin, however, of cutting cameos in precious stones is very remote. The art is supposed to have had its arise in Asia: it was practised in Babylon, and was transferred thence into Egypt by the Phœnicians. It was then carried on by the Greeks and Romans, who brought it to great perfection. After the age of Praxiteles, the art of cameo-cutting became very popular in Greece. They were not only used for ornaments of dress, but were set in goblets, vases, lamps, &c. Antiquaries have not decided as to whether the gems commonly called Etruscan are Greek. Some drinking-cups at that time were made out of a single stone, the outer surface forming one cameo. The Gonzaga cameo, now in St. Petersburg, is said to be the finest specimen of the antique cameo in existence. It represents two heads, supposed to be those of Ptolemy and Eurydice. A cameo, representing Cupid and Psyche, in the Marlborough collection, is said to be the finest in England. The Barberine, or Portland vase in the British Museum is one of the most beautiful specimens of the ancient glass cameo. The manufacture of shell cameos is very recent. It originated in Rome in 1805, and, up to the year 1840, was almost entirely confined to Italy. A large number of cameos are now made in Paris: they are set as brooches, pins, &c., and much worn as ornaments.

CAMOUFLET, *kam-oo'-flai*, when sappers and miners have driven a gallery close to any part of the works of a besieged town, a countermine is sometimes made by the besieged, charged with a composition so called, the explosion of which destroys the works of the attacking party, and kills or injures the men employed in the trenches with its intolerable and suffocating odour.

CAMP, *kamp* (Lat., *campus*, a level plain),

the name applied to any collection of tents or huts in which soldiers are temporarily lodged in time of war, or to buildings of more lasting character; as the camps at Aldershot and the Curragh. The Romans paid great attention to the formation of their camps. Wherever the army remained, if only for a single night, a trench was dug, and a rampart thrown up round it for its protection. They were accustomed to make two different kinds of camps—one for the summer season, when troops were on the march, and the other for soldiers in winter quarters. They were alike in principle of construction, but, while the summer camps were larger in size, being intended for the accommodation of an entire consular army, the winter camps were more strongly fortified. The ground chosen was generally as level as possible, and on elevated ground, from which the whole of the surrounding country could be seen. If it could be obtained, a slightly rising ground in the centre was taken for the position of the Prætorium, or head-quarters of the general or consul commanding, and the camp was laid out round this spot. It was in the form of a square, and the length of each side was about 2,080 English feet, when it was intended to accommodate an entire consular army, which consisted of two Roman legions, each of 4,200 foot-soldiers and 300 cavalry, and 10,500 infantry and 1,800 cavalry of allied or auxiliary troops, of which 2,100 infantry and 600 cavalry formed what were termed the extraordinary or picked troops of the allies, who acted as part of the general's body-guard; making the total force under arms about 25,000 men, including officers. There was a gate in each side of the square. Between the inner square occupied by the encampment and the rampart, an open space, 200 feet in width, intervened. The *vallum*, or rampart, was made of turf and earth taken out of the *fossa*, or ditch, surmounted and strengthened by a row of stakes or palisades. The ditch itself was generally from twelve to fifteen feet wide and nine or ten feet deep. There are many remains of Roman camps in Great Britain; and all towns the names of which end in "chester," a corruption of the Latin *castra*, a camp, such as Manchester, Colchester, Winchester, &c., have been built on the sites of Roman encampments or military towns, from which they have derived their names. The remains of the Danish camps in this country, or those which are considered to be Danish, indicate that they were circular in form, and sometimes constructed with more than one line of defence. The temporary encampments of the Saxons and Danes were fortified with barricades composed of trees, with the branches cut, to present the form of projecting stakes, and sometimes with a rampart of earth and stones. The Britons protected their villages in a similar manner. The Gauls and ancient Germans surrounded themselves with their waggons and chariots, disposed in the form of a circle, and strengthened by barricades of trees and branches. In the campaign in South Africa, a similar plan of forming camps, by making barricades of waggons, was adopted by the British troops. The name camp is given to permanent military quarters at Aldershot, Hampshire, and the Curragh, Ireland, where troops are trained in military science, and for operations in the field; but these places are now really military towns.

Camp Equipage.—The tents, furniture, fittings, and utensils carried with an army for the use of the soldiers.

Camp Followers.—The sutlers and dealers in small-ware who accompany an army on its march. In India, the camp followers commonly greatly outnumber the regular troops.

CAMPAIGN, *kam-pain'* (Fr., *campagne*; Ital., *campagna*, an open plain), a term applied in the present day to a series of operations in warfare, by which any important end is achieved. It was formerly taken to mean that which was done by an army between the time that it left its winter quarters for active operations in the field during the summer months, until it entered them again. During this time the soldiers were under canvas or without shelter in the open field; and hence the name.

CAMPANILE, *kam'-pa-nile* (Ital., *campana*, a bell), the Italian name for a belfry or bell-tower, and thence applied to any part of a building that rises above the rest in the form of a square tower. The tallest campanile is at Cremona, rising to a height of 396 feet. The grandest and richest is that designed in 1334, by Giotto, for the cathedral at Florence. The campanile differs from the English bell-tower in being detached from the building to which it belongs. There are some good examples in modern English church architecture, the best of which will be found at Wilton, in Wiltshire, appended to the Byzantine church built by Lord Herbert of Lea. In domestic architecture the campanile usually rises over the entrance, terminating in a room of small size at the top, which often answers the purpose of a belvedere. (See BELVIDERE.) The chimney-shafts of engine-houses are often built in this style. It is a distinctive feature of Italian architecture, and is found in Byzantine architecture of the third period (see BYZANTINE ARCHITECTURE), as exemplified in that attached to the church of St. Mark at Venice. They are generally square in form, without buttresses, and of the same dimensions from top to bottom. The leaning tower of Pisa is, however, an example of the circular campanile.

CAMPO SANTO, *kam'-po san'-to* (Italian, holy field), a cemetery or burying-ground, especially an enclosed place of interment, surrounded by an internal arcade, and in which persons of eminence are interred. The most famous is that of Pisa, founded at the end of the 12th century, and consecrated to the memory of men who had deserved well of the republic.

CANAILLE, *kan-ile'* (Lat., *canis*, a dog), is a French term signifying the lowest class of the people—the rabble. Before the revolution in France, this word was applied by the nobility to all who were not of their own rank; and afterwards the people themselves adopted it in contempt of the aristocracy, when it came to lose its offensive signification. At present, the French apply the term only to such as have been guilty of some base act. Of one who has degraded himself, whatever his rank, they say, "C'est une canaille."

CANARD, *ka-nard'* (Fr., a duck), a slang term applied to an absurdly exaggerated statement, or unfounded rumour. This use of the word originated in a burlesque story respecting a flock of ducks, who ate one another until at last there was only one left.

CANARIES, *kan-ai'-rees*, a lively dance-tune, in three-eight time, said to have been introduced into this country from the Canary Islands. It is, however, more probable that it

was carried over from Normandy to these islands by John de Bethencourt, who invaded them about the close of the 14th century. The Canaries is introduced by Purcell in his "Dio-cletian:" the tune is in two strains of eight bars each, in three-eight time.

CANARY WINE, also known by the name of Tenerife, is a product of the Canary Islands. In taste it resembles Madeira; it is made from grapes which have been gathered before they are ripe, and, when new, has a sour and unpleasant taste. After being kept carefully for two or three years, its mildness increases greatly, and, like Madeira, it is greatly improved by a journey to the tropics. More of it is produced on the island of Tenerife than on the other Canary Islands. The name of canary is only applied to the Bidogne wine, and never to the malvoisie or malmsey of the Canaries.

CANDELABRUM, *kan'-de-lai'-trum* (Lat., *candela*, a candle), a term properly signifying simply a candlestick, but also generally applied to the support of a lamp. The candelabra formerly used in public edifices were mostly of large size, with a cup or flat dish at the top, to receive a lamp or some substance capable of illuminating. Candelabra were amongst the most richly-ornamented articles, and were made of bronze, iron, marble, terracotta, and wood. Some, however, were made or covered with gold and silver. Sometimes, instead of a shaft, a figure was introduced, holding, in one hand, the cup or receptacle for the oil. A small candelabrum was used as an altar.

CANDYS, *kan'-dis*, a loose gown made of brilliantly-coloured woollen cloth, with wide sleeves, and worn by the Medes and Persians over their other garments. A similar gown is still worn by Orientals.

CANEPHORI, *ka nef'-o-re*, the name given at Athens to girls of noble families, selected to walk in the annual Panthenaic, and other festivals, carrying on their heads or shoulders baskets containing the implements and apparatus necessary for a sacrifice. Very graceful figures of the Canephori may be seen in the frieze of the Pantheon in the British Museum.

CANICULAR DAYS, *kan-ik'-u-lar* (Lat., *dies caniculares*). (See DOG DAYS.)

CANICULAR YEAR (Lat., *canis*, a dog), the name of the year as observed by the Egyptians and Ethiopians, so called because reckoned from one heliacal rising of Canicula, or the Dog-star (Sirius), to the next. The reason of the choice of Canicula seems to have been not so much its superior brightness, as that its heliacal rising then coincided with the greatest swelling of the Nile; and hence the first rising of this star was annually observed with great attention. The Canicular year ordinarily consisted of 365 days, and every fourth year of 366.

CANNIBALS, *kan'-ni-bals*, is supposed to be a corruption of Caribs, the original inhabitants of the West-India islands (some tribes of whom called themselves *Canibs*), who were reputed to be man-eaters; and hence the term has come to denote *anthropophagi*, or persons who devour human flesh. The ancient Greek writers, and later travellers, Marco Polo and others, refer to people who practised cannibalism. When America was discovered, this practice was found

to prevail to a very great extent. According to Prescott, the Mexicans did not eat human flesh merely to gratify a brutish appetite, but in obedience to their religion. Their repasts were made of the victims whose blood had been poured out on the altar of sacrifice. In New Zealand and many parts of Africa cannibalism was systematically practised; with some, human flesh being regarded as a delicacy. M. du Chaillu states that the Fans, a people of western equatorial Africa, not only devour the bodies of captives but even the bodies of those who have died of disease, purchasing for that purpose the corpses of neighbouring tribes and disposing in the same way those of their own. The Fiji islanders were until very recently cannibals. North American Indians would sometimes eat the flesh of a brave enemy killed in battle, especially the heart, believing that the courage of the dead warrior would be imparted to them.

CANON, kan'-on. In Music, a composition consisting of two, three, or four parts, in which the several voices begin at fixed intervals consecutively; sometimes each voice commences with the same, sometimes with different notes. Canons may be finite or infinite; the former end, like other compositions, with a cadence, while in infinite canons the theme is begun again before the parts which follow are concluded. They are so constructed as to form a perpetual fugue (see FUGUE), but differ from ordinary fugues; for in the latter it is sufficient for the subject to be repeated occasionally according to the laws of counterpoint, while in the former it must be strictly repeated by all the succeeding parts. The canon is described as "the highest degree of mechanical musical contrivance." In ancient music canons were rules for determining the intervals of notes. Amongst the ancient Greeks this term signified what we now call a monochord.

CANOPIC VASES, kan'-o'-pic, vases used by the Egyptians to contain the viscera of an embalmed body. Four vases were used, each to contain a particular portion, and having on its lid a representation of the head of the god who was supposed to have especial care of the contents.

CANOPY, kan'-o'-pe (Gr., *kanopeion*, from *kanops*, a gnat), a word meaning in its original sense a covering similar to the mosquito curtains of India, to protect the sleeper from those insects. Subsequently the term canopy was applied to any ornamental covering above the head, for the purpose of distinction, honour, or adornment. In this sense the word is synonymous with the term baldachin. (See BALDACHIN.)

In Architecture, it is applied to the coverings that project from the surface of the wall above the heads of statues placed in niches and over altar-tombs, and to the dripstones over windows when elaborately carved. Magnificent specimens of canopies are to be found over the tombs of some of our kings, and over the bishop's throne in many of our cathedrals. The canopy is a peculiar feature of Gothic architecture, belonging principally to the Decorated English and Perpendicular English styles.

CANT, kant, is a term denoting a quaint affected manner of speaking or writing, or the speaking in a whining, affected tone of voice. It is more particularly applied to a peculiar manner of preaching, praying, or begging. It also denotes the frequent use of phrases not well understood; or the use of terms of a particular profession or class of individuals; as, gipsy cant.

CANTABILE, kant'-a'-bel, indicates an easy and flowing style of singing or playing particular passages.

CANTALIVER, kant'-a'-li-ver, a large ornamental bracket used for supporting balconies, cornices, and sometimes stairs.

CANTATA, kan ta'-ta (Ital., from *cantare*, to sing), an elegant species of vocal composition, of which there are several kinds, supposed by some to have been invented by Barbara Strozza, a Venetian lady, about the middle of the 17th century, while others attribute its invention to Giacomo Carissimi, pontifical chapel-master. It consists of an intermixture of air and recitative, and was at one time extended to such a length as to form a sort of small opera, but is now, however, ordinarily written for only one voice with a *thorough base*, though sometimes for several, accompanied by one or more instruments. In Italy, cantatas of great length, accompanied by a numerous band, are performed on great occasions of festivity. But these differ essentially from what is usually understood by a cantata, or monologue, consisting of short recitatives and two or three airs at most, as they are occasionally poems in which several singers are employed. The term is now given to compositions of a dramatic character, involving a simple story, interspersed with descriptive passages, of which modern musicians, Bennett, Macfarren, Benedict, and others have produced fine examples. According to Du Cange, the word *cantata* was used in the Church as early as the year 1314 to express what is at present understood by *anthem*, with which word it is still synonymous in Germany, cantatas being chiefly confined, in the Lutheran Church, to sacred music.

CANTER, kan'-ter, the movement of a horse going at a moderate gallop, when the fore feet are raised nearly together, with a leap or spring. The name is derived from the easy pace and gentle gallop with which the pilgrims were in the habit of traversing the roads to the shrine at Canterbury.

"CANTERBURY TALES." — Geoffrey Chaucer (1328-1400), if not fully entitled to the distinction generally awarded him of being the father of English poetry, may without question be ranked as the first of those delineators of character and manners, in verse or prose, who have conferred such a special distinction on English literature—the forerunner of Shakespeare, Addison, Defoe, Fielding, Smollett, Scott, Dickens, and Thackeray. No previous writer had attempted more than a few metrical tales; but Chaucer produced at least fifteen poetical compositions of very high merit, besides "The Canterbury Tales," which are the best known of his writings, and on which his fame rests. These tales appear to have been arranged in the form now known to us in the later years of the poet's life—some of them probably written at various periods, and, it may be, published as separate poems; and it appears also to be evident that the work was not completed at his death. The idea of joining together a number of stories by means of a connecting narrative is of great antiquity, and appears to have originated in the East. Before Chaucer's time the plan had been adopted in Europe by Peter Alfonsi, in his "Disciplina Clericalis" and the popular romance of the "Seven Sages." The devices for introducing the stories were often very

ingenious. Boccaccio had written, when Chaucer was a boy, the famous "Decameron," a collection of a hundred tales supposed to be related by a party of three gentlemen and seven ladies of Florence, who had fled from the city to avoid the plague. In our own day, we are familiar with the devices of Dickens and his imitators, by which a number of persons, associated in some ingenious manner, become tellers of stories. Chaucer made his company meet in the most probable manner. Pilgrimages to the shrine of St. Thomas at Canterbury were very frequent, and the pilgrims travelled in company for mutual protection. They were by no means all devout persons; but the pilgrimage was considered as a set off against a multitude of sins. Such a company Chaucer tells us met at the Tabard Inn, in Southwark, whence they set out, under the guidance of the host, one of the jolliest and shrewdest of tapsters. With a keen and subtle appreciation of character, with broad humour, and a marvellous artistic power, the poet describes the personages; and his vigorous sketches are as lifelike, and no doubt as true to the features of the time, as those of the most illustrious of his successors. There are a knight, a squire, a yeoman, a prioress ("full symple and coy"), a stalwart monk, a friar ("wanton and mery"), a merchant, a shipman, a sergeant of law, a franklin (a country gentleman), a cook, a doctor of physic, a wife of Bath (a coarse, jolly creature, who had outlived many husbands, and whose tongue was the freest of all the company), a reeve (farmmanager), a sumptuer, a vendor of pardons, and others. The host proposes that by way of enlivening the journey, the pilgrims shall "tell tales." This is agreed to, and then come the stories, generally with a prologue. The narratives are varied in character; some, partly borrowed from Boccaccio and others, and adapted to English manners and localities, outrageously coarse; others, tender and romantic, and some marked by a strong religious feeling. The knight, as becomes him, tells a story of love and chivalry; the cook relates the tale of Gamelyn, in which Shakespeare perhaps found a basis for *As You Like It*. Another of the pilgrims shapes the legend of "Patient Griselda." The young squire is quite at home with "the Story of Cambuscon bold"; the doctor of physic relates the story of the Roman Virginius and his daughter; and the gentle prioress tells us how the Jews murdered "Young Hugh of Lincoln." All the stories cannot be enumerated. Some are far too coarse for modern ears; and if Chaucer sketched veraciously the manners of his time—and there is abundant evidence that he did—it would seem that even gentle prioresses and "nun-priests" had no scruple about listening to stories which certainly nobody would dare to relate in public now. Chaucer painted society as he found it, and the cheerful heartiness of his style, his many delicate touches, his sympathy with beauty and tenderness which no coarseness of diction can obscure, and his vigorous humour place him in the very foremost rank of English writers. The first edition of the *Canterbury Tales* was printed by Caxton about seventy-five years after Chaucer's death. Of this edition, only two perfect copies are known, one in the King's Library at the British Museum, and one in Merton College, Oxford.

CANTO, *kan'-to* (Ital., *canto*, a song), a part or division of a poem, answering to "book" in prose.

In Music. (See *SOPRANO*.) In church music, *canto* means plain song, or choral song in unison and in notes all of equal length.

CANTON, *kan-ton*. In Heraldry, one of the nine honourable charges or ordinaries, occupying a third part of the chief, or exactly one-tenth part of the field. It is square in form, and is borne on the dexter or sinister side of the shield.

CANTONMENTS, *kan-ton'-ments* (Fr., *cantonnement*). Troops are said to go into cantonments when, either on account of the inclement state of the weather, difficulty of obtaining supplies, an armistice, temporary suspension of operations in the field, or other causes, the general commanding determines to quarter his troops in the towns and villages of any particular district, instead of putting them under canvas. The term cantonments is applied in India to barracks built near any large town or city for the reception of troops. They correspond very nearly to our own barracks and permanent camps, with this particular difference, that the quarters of the various troops are not contiguous, but are spread over an area of considerable extent. The cantonments are sometimes called "the lines." They are generally situated at some little distance from any town to which they are attached.

CANTONNEE, *kan'-ton-nai*, in Heraldry, when a cross is placed between four other objects it is said to be *cantonnée*.

CANTOR LECTURES, *kan'-tor*, courses of lectures on manufacturing processes given annually at the Society of Arts, in conformity with the will of Dr. T. E. Cantor, of the Indian Civil Service. The first lecture was given December 7, 1863.

CANUN, *kai-nun*, a musical stringed instrument, played by the fingers, on which are thimbles of tortoise-shell pointed with pieces of cocoa-nut. Turkish ladies play on this instrument.

CANZONE, *kan-zo'-ne*, is the name given to one of the oldest forms of the Italian lyric. The word is, indeed, derived from the *canzós* or *chansós* of the Provençals; but the Italians were the first to give it a definite form. It received its classic stamp principally from Dante and Petrarch. With them the canzone was any considerable lyric poem divided, like the Greek strophic ode, into stanzas exactly corresponding to one another in number of lines, metre, and position of rhymes; the last stanza being commonly shorter than the others, and usually consisting of a valedictory address by the poet himself to the poem. After Petrarch, Tasso and other poets deviated from the strict form of the canzone.

Canzonetta is an abridged canzone written in short lines and verses.

CAP, *kap* (Lat., *caput*, the head) a covering for the head. Caps were not worn by the Romans for many ages. When the rain or sun was troublesome, the lappet of the gown was thrown over the head. The same usage prevailed among the Greeks, where, at least during the heroic age, no caps were known. The general use of caps and hats in Europe is referred to the year 1449, when they were used at the entry of Charles VII. into Rouen. From that time they began to take the place of *chaperons* or hoods. When the cap was of velvet, it was called *mortier*; when of wool, simply *bonnet*. None but kings, princes, and knights were allowed to use the *mortier*.

The cap was the head-dress of the clergy and graduates. Pasquier says that the giving of the cap to students in the universities denoted that they had acquired full liberty, and were no longer subject to the rod of their superiors—in imitation of the ancient Romans, who gave a *pileus* or cap to their slaves in the ceremony of making them free; and hence on medals Liberty was represented as holding out a cap in her right hand. Churchmen, members of universities, students, and others, wear square caps. The French clergy wear a shallow kind of cap called a *calotte*, which covers only the top of the head. The cap was also sometimes used as a mark of infamy. In France those who had been bankrupt were obliged to wear ever after a green cap, to prevent people from placing confidence in them in any future transaction; and if they should at any time be found without this cap, their protection was to be null.

CAPARISONED, *ka-par'-e-zoned* (Fr.), in Heraldry, a war-horse fully equipped for the field.

CAPE, in Geography, the extremity of a portion of land projecting into the sea beyond the general line of the shore. On rocky coasts they are sometimes called points or promontories.

CAPITAL, *kap'-it-al* (Lat., *caput*, the head), a term in Architecture, applied to that part of the column which surmounts the shaft, including the bell—a part swelling outwards between the shaft and abacus, and the abacus itself. When the lower part of the capital assumes the appearance of being a continuation of the shaft, separated from it by an astragal, or moulding, it is called the neck of the capital. In the five classic orders of architecture (see ARCHITECTURE) the capitals form striking marks of distinction, and there is considerable difference in the treatment of the capital of the same order in Greek and Roman architecture. A description of the various forms of capitals used in Architecture of different epochs, styles, and countries, will be found in the several articles devoted to this subject. (See ARABIAN, BYZANTINE, EGYPTIAN, HINDOO, GOTHIC ARCHITECTURE, &c.)

CAPITAL LETTERS are those large letters of the alphabet that are employed in writing and printing, in place of small letters, at the beginning of proper names, sentences, lines in poetry, &c. Formerly, it was the custom to begin every noun with a capital letter, and this is still the case in German; but in English the capitals are now more sparingly employed. The principal occasions in which they are used are at the commencement of proper names of persons, places, specific titles, and designations of offices; of adjectives derived from proper names (although that rule is subjected to many modifications); the opening of quotations; beginning of a sentence, and of each line in poetry; the pronoun I; and every principal word in the titles of books.

CAPITOLINE GAMES, *ka-pit'-o-line*, annual games instituted by Camillus, and held by the Romans in honour of Jupiter Capitolinus. They commemorated the preservation of the Capitol from the attacks of the Gauls. The name was also given to certain games which were celebrated every five years. Nero endeavoured to introduce a new method of computation of time from this quinquennial celebration.

CAPONNIÈRE, *kap-on-yairé* (Fr.), in Fortification, a passage made across the ditch of a fortress to any of the out-works, such as the ravelin in front of the curtain connecting any two bastions. Sometimes the caponnière takes the form of a covered gallery of masonry, with the sides loop-holed for musketry. In field-works they are formed of palisades, or consist of trenches with a bomb-proof covering.

CAPOTE, *ka-poté* (Fr.), a long cloak made of muslin or black silk bordered with lace, worn by ladies. The name is also given to a large horizontal hat with a heavy fringe of lace; and overcoats worn by the French soldiers are called capotes.

CAPRICCIO, *ka-prit'-tcho* (Ital.), an irregular species of composition, in which the composer, without any other restraint than the boundary of his imagination, continually digresses from his subject and runs wild amidst the fervour of his fancy.

CAPULETS AND MONTAGUES, *kap'-u-lets, mon'-ta-gues*, the English mode of spelling the names of the Cappalletto and Montecchi, two noble families of Northern Italy, belonging to the Ghibelline party, whose private quarrels furnished the groundwork of the pathetic story on which Shakespeare founded his *Romeo and Juliet*.

CARABINIERS, *kar-a-bin-eers'* (Fr.), a name formerly applied to light cavalry employed in the French service, and among the Spaniards, Italians, and Arabs, for skirmishing and outpost duty. Many regiments of English cavalry were once known by this title, but it is now the distinctive appellation of the 6th Dragoon Guards.

CARACOLE, *kar'-a-kol* (Fr., a wheeling about), a term applied, in the art of horsemanship, to the half-turn or semi-round taken by the rider either to the left or right. In the army, after each discharge, the cavalry make a caracole, in order to pass to the rear.

CARAVAN, *kar'-a-van* (Persian *karavan*, a trader), is a name given to a company of merchants, travellers, or pilgrims, who associate together for safety and convenience, and at stated times traverse the deserts or other dangerous parts of Asia or Africa. A caravan has sometimes several thousand camels, which follow each other in single file, so that it may be several miles in length. Camels are almost uniformly used in preference to the horse or any other animal, on account of their great patience of fatigue, and their wonderful adaptation for travelling in the desert. Merchants and travellers proceeding in the same direction usually wait upon each other until they can form a caravan for mutual protection, when one of their number is generally appointed to direct their movements.

CARAVANSARAI, *kar-a-van'-sa-re* (Persian *karwan*, a trader, and *serai*, a large house, named also a *khan*), in Eastern countries is a place appointed for receiving and loading caravans; or a kind of inn where caravans rest at night, except that it presents little but shelter, the traveller being obliged to carry all his provisions and necessities along with him. They are usually erected by the munificence of princes or other great men, and are situated sometimes in the towns and villages, and sometimes at convenient distances along the road. They are

usually large square buildings, with a spacious court in the middle; and under the arches or piazzas that surround them there runs a bank raised some feet above the ground, where the merchants and travellers take up their lodgings, the beasts of burden being fastened to the foot of the bank. The "inns" mentioned in the Old and New Testaments, were similar to the modern caravansarai.

CARBINE, OR CARABINE, *kar'-vine* (Fr.), a light kind of musket, about three feet or more in length, used by light cavalry, the artillery, the yeomanry cavalry, and the Irish constabulary. The carbins, or light cavalry, enrolled by Henry II. of France, about 1560, and the carabineers of Louis XIV., in the latter part of the 17th century, were armed with these weapons; and it is uncertain whether these troops derived their name from that of the gun with which they were armed, or whether the gun received its appellation from that of the troops.

CARDINAL, *kar'-di-nal* (Latin, *cardinalis*, principal, from *cardo*, a hinge), is a term used in various connections to denote the chief, principal, or fundamental parts of a thing. It was also the name given, under the Emperor Theodosius, to the highest officers of the State.

In Grammar, Cardinal Numbers are the numbers one, two, three, &c., as distinguished from first, second, third, &c., which are called ordinal numbers, as denoting order.

In Cosmography, Cardinal Points are the four points of intersection of the horizon with the meridian and the prime vertical circle, or north, south, east, and west. The *cardinal winds* are those which blow from the cardinal points.

In Astrology, the *cardinal points* of the heavens, or of a nativity, are the rising and setting of the sun, the zenith, and nadir.

In Astronomy, Cardinal Signs are—Aries, Libra, Cancer, and Capricorn.

CARDS, PLAYING, *kards*.—Neither the country nor the date of the introduction of playing-cards is known. Possibly they came from the East; for the Chinese and Hindoos have playing-cards that are clearly not of European origin. An Indian pack of cards believed to be a thousand years old is in existence. It has eight suits, and the kings are represented as riding on elephants, and the viziers, the second honours, upon horses, tigers, and bulls. It is noticeable that, as in chess, the Oriental vizier, or general, has been changed by western nations to a queen. Chinese cards are said to have been invented about 1120 A.D., for the amusement of the many wives of the Emperor Seun-ho. There were three suits of nine cards each, and three superior cards, making thirty in all. Playing-cards were not introduced into Europe till about 1380. Some of the old names for cards, as *naypes*, in Spain, and *naibi*, in Italy, are of Arabic etymology, and signify fortune-telling. The names of the suits now generally used—diamonds, hearts, clubs, and spades—are of French origin. In an old German pack of cards, clubs are represented by acorns and hearts by heart-shaped leaves. At the time of the French Revolution the "Court" cards were changed, philosophers being substituted for the kings, and symbolized virtues for the queens. The manufacture of these articles is a very important one in this country, and great taste and ingenuity are displayed in the manufacture and ornamentation of the backs. Cards were first taxed in

England in 1710. In 1827 the duty was reduced from 2s. 6d. a pack to 1s.; and in 1862 to 3d. Makers of cards pay £1 annually for a licence; and previous to 1870 sellers of cards had to take out a licence for which they paid 2s. 6d. annually.

CARET, *kar'-et* (Lat., *careo*, I want), a mark thus (A), used to denote that something has been omitted, and that it is interlined.

CARICATURE, *kar-e-ka-ture'* (Ital., *cari-care*, to load or overcharge), is a representation in which certain parts or peculiarities of an object are exaggerated, but in such a way that the general likeness is preserved, or even made more striking. Caricature in the pictorial arts occupies the same place that burlesque does in literature. The legitimate objects of the one and of the other are the vices and follies of individuals or of classes, and all disagreeable peculiarities of manner and appearance which arise from these. The ancients employed caricature, as we find from their masks. Among Italian painters, Leonardo da Vinci is a master of this art, representing the quarrelsome, braggart, peevish, gluttonous, or clownish, with an exaggerated fidelity. Among the French, Callot, and among the English, Hogarth, stand prominently out in this walk. The Italians have too strong a sense of the beautiful to have a great relish for caricatures, and the Germans are too grave to excel in these sportive productions. The French caricatures are rather exaggerated representations of life than satirical conceptions. The English exhibit a greater appreciation of, and skill in this sort of humour than any other people. The most famous modern English caricaturists are Gilray and Rowlandson (both powerful, but abominably coarse), Heath, George Cruikshank, John Doyle ("H. B."), Richard Doyle (his son), Leech, Tenniel, and Du Maurier, the three last being remarkable for the humour and keenness, combined with great artistic power, with which they satirize the political and social aspects of their time.

CARILLONS, *kar-il'-lons* (Fr.), a name given to small instruments furnished with bells (properly tuned), they are acted upon by finger-keys, like those of a pianoforte, and used for accompanying certain songs, where the ringing of church-bells is to be imitated, and where dampers are not used for preventing the continuance of the sound. The steeples of some of the churches in Holland and some parts of the Netherlands are furnished with a large series of bells, tuned accurately to the tones and half-tones of the scale. They are connected at one end by wires with hammers, that strike the bells, and at the other with keys, and pedals for the lower notes of the scale. The persons who play these instruments (called *Carillonneurs*) find it rather hard work, as the carillons are played by striking the keys rather forcibly with the hands and feet. The keys of these instruments are projecting sticks placed far enough apart to enable the performer to strike them with violence and velocity by the two hands edgeways, connected with the bells as those of an organ are with the pipes. The performers on these instruments wear thick leather coverings on the little fingers of each hand, to protect them from the violence of the stroke given. The first and second trebles are played with the hands, and the bass with the feet on the pedal keys. *Carillon* is also the name given to small keyed instruments made to imitate

a peal of hand-bells, the tones of which are produced by box hammers striking iron bars of different lengths.

CARMAGNOLE, *kar'-man-yole*, the name of a song and dance that originated and became very popular in the time of the first French revolution. It appeared first in the south of France, and is supposed to have received its name from a waistcoat worn by the Marseillais who took a conspicuous part in the insurrection of August 10, 1792; and this style of waistcoat is supposed to have been first worn in the town of Carmagnola, in Piedmont. It was commonly sung and danced at popular festivals, executions and outbreaks of popular fury. Louis XVI. and his queen Marie Antoinette were nicknamed in the song, *Monsieur and Madame Vêto*. Every verse ended with the refrain, *Dansons la Carmagnole, vive la son du canon!* "Let us dance the Carmagnole, hurrah for the sound of the canon!" Afterwards the name was applied to a kind of white jacket worn by the revolutionists, and by all who wished to show their patriotism.

CARMEN, *kar'-men*, (Lat., *carmen*, a charm), a term used among the Latins to signify in a general sense a verse. In a more peculiar sense, they employed it to denote a spell, charm, form of expiation, &c., couched in few words, and placed in a mystic order, on which its efficacy depended. These were generally in verse; but it was also applied to laws, precepts, prayers, and all solemn formulæ comprised in few words, and arranged in a certain order, though written in prose.

CARNATION, (Lat., *caro*, flesh). In painting, flesh tints are known as carnations.

CARNEAN GAMES, *kar'-ne-an*, games in honour of Apollo (one of whose names was *Carneus*) instituted in many Grecian cities, especially Sparta, about 675 B.C.

CARNIVAL, *kar'-ni-val* (Lat., *caro* flesh; *vale*, farewell—i.e., farewell to flesh), the name of a festival observed in Roman Catholic countries, particularly in Italy, immediately before the commencement of Lent. At first it began on the feast of the Epiphany, or Twelfth-day, and ending on Ash-Wednesday; but it is now limited to a period of from three to eight days before the beginning of Lent. It doubtless arose from the *Saturnalia* of the ancient Romans, which were celebrated annually, in the month of December, with all kinds of mirth and freedom, in honour of the golden age, when Saturn governed the world, and when liberty, equality, and happiness prevailed. The Christianized Romans were in this, as in other cases, loath to lose their pagan festivals, and the Church granted her sanction to what she could not very well prevent. The early Christians, it is said, on these days, gave themselves up to voluntary madness, put on masks, exchanged sexes, clothed themselves like spectres, and considered all kinds of pleasures allowable. Rome and Venice are now the cities where the carnival is celebrated with the greatest effect; but even in them it is rapidly declining. In Rome the public festivities are confined to the Corso (which is about a mile long, but very narrow) and the street adjoining, and extends over the eight days immediately preceding Ash-Wednesday. The balconies of the houses are crowded with numerous gaily-dressed spectators, and hung with brilliantly-coloured pieces of

cotton or silk; while innumerable streamers of the same hues flutter in the breeze. The street below is thronged with carriages filled with gay parties; while crowds of pedestrians mingle with the vehicles, masked, clad in every variety of costume that fancy can suggest, and playing every imaginable kind of prank. One and all, in the street or on the balconies, engage heartily in pelting each other with flowers, boubons, and *confetti* (i.e. small pellets of lime about the size of a pea). The festivities do not last the entire day, but only from about 2 to 5 o'clock, and are each day succeeded by a race by horses without riders. In the evening the windows are illuminated, and the maskers go about with tapers in their hands, every one striving to preserve his own taper and extinguish those of others. In Paris, the carnival is marked by masked and fancy balls. On the Sunday, Monday, and Tuesday preceding Lent, and at *mi-carême*, or Mid-Lent Thursday, masks are worn in the streets and immense crowds assemble. On the Sunday and Tuesday before Lent, the procession of the *bœuf gras* (fat ox) takes place, the huge animal being led through the streets accompanied by a numerous train of butchers in fantastic dress.

CAROL, *kar'-ol* (Ital., *carola*, a song of joy), denoted originally a song sung as an accompaniment to dancing, and afterwards applied to a religious song used in celebration of Christmas. (See CHRISTMAS.) According to Tertullian, it was customary at feasts to place in the middle such as were able to sing, and call upon them to praise God in a hymn either out of the Scriptures, or of their own invention.

CAROLITIC COLUMNS, *kar-o-li'-ik*, columns, the shafts of which are decorated with foliage, flowers, and branches, winding round them in a spiral form, or assuming the shape of wreaths and garlands. The derivation or meaning of the term carolitic is uncertain.

CARPET KNIGHTS, a term sometimes applied to civilians, who, on account of birth, meritorious service, or the like, are raised to the dignity of knighthood. They were so called because they usually received their honours in the court, kneeling on a carpet, and were thus distinguished from knights created in the camp or on the field of battle. The name is also given ironically to knights who have never seen military service.

CARREL or QUARREL BOLT, *kar'-rel*, the arrow used in cross-bows: a cross-bow.

CARROUSAL, *kar-row'-zal* (Ital., *carro-sello*, diminutive of *carro*, a chariot), is, properly, a course or contest of chariots and horses, but generally applied to a magnificent entertainment given by princes or other great personages on occasions of public rejoicing, and consisting in a cavalcade of persons richly dressed and equipped, after the manner of ancient cavaliers, who met in some public place to practise jousts, tournaments, and the like. Carousals took the place of the earlier tournaments, and were common in all the courts of Europe down to the 18th century.

CARSE, *karse*, a Scottish term of uncertain origin, signifying low lands near rivers.

CARTE BLANCHE, *kart blaunsh* (Fr., white card), is a paper containing nothing but the signature and it may be, the seal of the party

who grants it, in order that the party receiving it may fill it up or insert such conditions in it as he pleases. Generally, the term is used to express unlimited authority delegated by one person to another to act as he may think best.

CARTE DE VISITE, *kart-de-vi-seet*, a photographic full-length portrait of small size, rather less than a playing card. When first introduced at Nice, in 1857, the Duke of Parma had his portrait placed on his visiting cards.

CARTOON, *kar-toon'* (Lat., *carta*, paper; Ital., *cartone*, pasteboard), a drawing on a large scale, generally of the full size, executed as a preliminary design for tapestry or any painting of considerable size in oil-colours or fresco, from which the work itself is afterwards copied. It serves in the latter case as a study in which the artist can more readily correct the composition of the design and the details of the drawing, before entering on the execution of his painting. After the paper is stretched, it is sometimes primed, particularly if the cartoon is to be executed in distemper colours; but this process is dispensed with if it is to be merely a sketch in chalks, similar to the cartoons which were exhibited in 1843 as studies for the frescoes in different parts of the new palace at Westminster, some of which may now be seen at Hampton Court. The drawing is transferred to the canvas or plaster in fresco-painting (see **FRESCO-PAINTING**) either by rubbing the back of the cartoon with black chalk or charcoal, and tracing the outline with a hard point, or by puncturing the outline with holes, through which the surface of the material on which the work is to be executed may be marked with chalk. If, however, the painter desires to preserve the original cartoon, he stretches threads across his drawing, so as to divide the surface into a number of squares of the same size, and draws lines across the canvas at right angles to each other, to divide it into a similar number of corresponding squares. Cartoons are indispensable for paintings in fresco, as these can only be executed in small portions at a time, while the plaster on which the painting is made remains wet. Some cartoons by Annibale Carracci may be seen in the National Gallery *Raffaello's Cartoons* in the world are those by Raffaello, now in the Raffaello Saloon of the South Kensington Museum. It is to be regretted that seven only remain out of the original set of twenty-five which were executed for Leo X. about 1516, as designs for tapestry. Two sets were made at the tapestry-works at Arras, one of which is now at Rome and the other in the Museum at Berlin. Raffaello's exquisite designs were thrown aside as soon as the tapestry was executed, and the greater part were lost or destroyed. The seven that remain were purchased by Rubens for Charles I., to be copied at the tapestry-works at Mortlake. After the death of this monarch, they were bought for the nation, by order of Cromwell. Charles II. afterwards sent them to Mortlake, where an attempt was made to produce the designs in tapestry, and there the drawings were much injured and defaced. They were, however, restored and mounted on canvas by a painter of the name of Henry Cooke, by command of William III., who built a gallery for their reception at Hampton Court, after a design by Sir Christopher Wren. They were removed to Buckingham Palace and Windsor Castle in the reign of George III.; but were restored to the gallery at Hampton Court, in 1814. In

1865, they were removed to the South Kensington Museum. The subjects of the seven cartoons are, Paul preaching at Athens, the death of Ananias, Elymas the sorcerer struck with blindness, Christ delivering the keys to Peter, the sacrifice at Lyctus, the apostle healing the sick at the beautiful gate of the temple, and the miraculous draught of fishes.

CARTOUCHE, *kar-toosh'* (Fr., *cartouche*), the name sometimes given to the box or case in which soldiers carry their cartridges. Cartridges are now carried in a tin case, which fits into the outer one of leather. The name was also formerly given to a wooden box containing a number of bullets and balls which were used as grape and canister are now, for firing into a close body of men on the deck of a vessel, or advancing to carry a breach by assault.

In Architecture, a tablet intended to receive an inscription which resembles a scroll of paper rolled up at the ends. It is also applied to the moulding that supports the corona of a cornice used in interior decoration.

In Egyptian Archæology, the oval or elliptical figures that are carved on columns and other parts of a temple to receive hieroglyphic inscriptions of different kinds. These figures are cut in what is called *cavo-rilievo*, that is to say, the surface of the ground of the cartouche is hollowed out below the surface of the stone, while that of the hieroglyphic figures that appear in relief on the ground of the cartouche is level with it, being, in fact, the surface of the column round which the sunken part has been hollowed out. The term is also applied to describe the oval line, which in hieroglyphical inscriptions encloses the name of a monarch.

CARVING, *karv-ing* (Saxon, *cearfan*, to carve), a term more particularly applied to the production of figures, fruit, flowers, and ornamental work, from pieces of wood or ivory, by cutting the same into the desired shape by means of chisels, gouges, saws, and files of the necessary forms. The art of carving is called "sculpture" when stone is the material employed, and "chasing" when the work is executed in metal. The ancient sculptors of Greece, and those of Byzantium in later times, excelled in carving in ivory; and magnificent cups, crucifixes, and other works of art, were produced in this material in Italy and the Low Countries between 1200 and 1600. The Hindoos and Chinese are famous for their delicate and elaborate carving in ivory to this day. Magnificent specimens of wood-carving are to be found in the majority of cathedrals and churches in the Gothic style of architecture erected during the middle ages in England and on the Continent; while Windsor Castle, Hampton Court, St. Paul's Cathedral, and many of the residences of the nobility, are enriched with work produced by the chisel of Grinling Gibbons, a carver of considerable repute, who excelled in the production of fruit and flowers, and flourished between 1670 and 1721. The art has been revived to a great extent in the present day; and some beautiful carving in wood has been executed. The Swiss are extremely ingenious in carving animals in soft wood, spirited figures being produced by comparatively few strokes of the tools employed. In recent years the application of machinery to the carving of wood has been brought to some degree of perfection. A pattern of the work to be carved is, in the first instance, prepared by the artist, after which the machine makes several copies of it simultaneously. The work can only be executed by the machine up to a state of forwardness, after which it must be finished by hand. In 1846, Mr. Pratt invented a carving-machine a description of which he gave

to the Institute of British Architects. His machine combined the principle of the lathe, the drill, and the pantograph. One of the most extensively used carving-machines is that invented and patented by Mr. Jordan in 1845. This machine is capable of copying any carved design which can be produced, so far as that is possible by revolving tools; the smoothness of surface and sharpness of finish is neither possible nor desirable, because a keen edge, guided by a practised hand, will not only produce a better finish, but it will accomplish this part of the work at less cost. The only object in using machinery is to lessen the cost of production, or to save time: and in approaching towards the finish of a piece of carving, there is a time when further progress of the work on the machine would be more expensive than to finish it by hand. This arises from the necessity of using smaller tools to penetrate into the sharp recesses of the work, and the necessarily slow rate at which these cut away the material.

CARYATIDES, *kar-e-al'-e-dees* (Gr., plural of *karuatia*, a woman of Caryæ), female figures clothed in long flowing robes, are used instead of columns, to support an entablature, like the male figures called Atlantes. (See ATLANTES.) The use of male and female figures to support porticos or entablatures was doubtless derived from the Egyptians, and dates from a very early period; but, according to Vitruvius, Caryatides received the name they still bear to commemorate the cowardice and want of patriotism shown by the people of Caryæ, a town of Arcadia, when Xerxes invaded Greece. For this act they were punished by their fellow-countrymen, who sacked their town, and, after killing all the males, reduced the women to a state of slavery; and as the figures called Caryatides appear supporting a heavy burden, like slaves, this name was applied to them to keep the slavery of the women of Caryæ in remembrance.

CASA, *kai'-za* (Latin, a hut or cottage), was used in the Middle Ages for a convent or church: thus Bede calls Whitchurch *Candida casa*.

CASCADE, *kas-kaid'* (Fr.), denotes properly a waterfall, in which the water does not, as in the cataract, fall uninterruptedly from a great height, but in which it is broken at several parts during its fall, or it is a waterfall less than a cataract.

CASE, *kaïse* (Lat., *casus*, from *cado*, I fall), in Grammar, is that modification which is effected on a noun to denote its relation to the rest of the sentence. This is commonly denoted by changes in the termination of the noun. The number of cases in the declension of nouns varies much in different languages. In Sanscrit there are eight cases; in Latin six; in Greek five. In English there are only three cases—the nominative, possessive, and objective—the last occurring only in pronouns, all the other relations of nouns are expressed by prepositions.

CASEMATE, *kais'-mait* (Fr.), a vaulted shell-proof chamber constructed in any work of defence, with embrasures, from which a fire can be kept up on the enemy, the artillerymen employed being protected from the enemy's shot and shell. Casemates are also used for the reception of troops and stores during a siege, or as hospitals.

CASEMENT, *kais'-ment* (Ital., *casamento*, a large house), a window which opens on hinges fixed to the side of the window-frame. Casement windows are common in old houses, the frames which support the glazing, which is set in grooved bands of lead, being made of iron. They are much used in the domestic Gothic architecture. The name is also given to a broad and deep circular moulding in Gothic architecture, which is sometimes enriched with rosettes placed at intervals, or foliage.

CASINO, *ka-se'-no* (Ital., a little house, dim. of *casa*, a house), is a club-house or place for social meetings. It is derived from the Italian, and was first applied to those small pleasure retreats which noblemen in Italy usually have at some distance from their palaces, to which they occasionally retire and enjoy themselves. Afterwards, the middle classes united in societies, and formed similar casinos or club-houses, for social enjoyment. The term is also applied to a building where musical or dancing soirées are held, and where there are also conversation and billiard-rooms, refreshment rooms, and such-like. Casinos are now common in France, Germany, and other parts of the Continent, and in this country the name has been given to saloons for dancing, where the company is promiscuous and more lively than select.

CASKET, *kas'-ket* (Fr., *casse*), a small box or chest for holding jewels or other small articles of value. The term is also applied by seamen to a small rope fastened to little rings upon the yards; it is used in order to fasten the sail to the yard when it is to be furled.

CASQUE, *kask* (Fr., *casque*), a term synonymous with helmet (see HELMET), applied to a defensive covering for the head, made of plates of steel or iron, and surmounted with a plume.

CASSOCK, *kas'-sok* (Fr., *casaque*), a kind of surcoat or long upper garment, now usually worn only by the clergy, but formerly by all classes. As worn by the English clergy, it is black, with a single upright collar; but on certain state occasions bishops sometimes wear purple cassocks. In the Church of Rome, cassocks vary in colour with the dignity of the wearer; those of the priests being black, bishops purple, cardinals scarlet, and popes white.

CAST, *kast* (Dan., *kaster*). The term cast is generally employed to denote a statue, bust, or the resemblance of anything that may be formed by pouring plaster of Paris in a liquid state into a suitable mould. It is also applied to articles of cast-iron and other metals. Impressions or casts are taken from the human face by inserting paper funnels into the nostrils, and then pouring liquid plaster of Paris over the face, which has been previously greased, to prevent the adherence of the material employed. It rapidly hardens and becomes fit for removal.

CASTANETS (Sp., *castaneta*, or *castaneula*, probably from *castana*, a chestnut), a small musical instrument much used by the Spaniards and Moors in their dances. It consists of two small round pieces of hard dried wood, or of ivory, hollowed out in the centre, and placed together, with the concavities inwards, and fastened to the thumbs. The fingers being rapidly struck upon them, a tremulous sound is produced, which marks the measure of the dance. The use of this

instrument was probably brought by the Moors from the East into Spain.

CASTLE, *kasl'-t*, in Heraldry, castles are often given as charges in the shields of persons who have distinguished themselves in assaults on strong castles.

CASTRAMETATION, *kas-tra-me-ta'-shon*, the art of encamping. (See **CAMP**, **ENCAMPMENT**.)

CAT, or **CAT CASTLE**, in the Middle Ages, was a movable tower employed to cover the sappers as they advanced to the walls of a besieged town.

CATACOMBS, *kat'-a-komes* (Gr., *kata*, in the sense of "below," and *kumbos*, a hole or hollow), vaults below the surface of the earth, used as burial-places for the dead. There are many of these subterranean excavations, in the form of long galleries and chambers, in many parts of Europe. They are to be found at Syracuse and Palermo, in Sicily, and in Asia Minor, Syria, Egypt, Persia, and Greece: some have also been discovered in South America. The catacombs of Rome, Naples, and Paris are the most famous; they are cut out of a soft calcareous rock that is easily quarried. The catacombs of Rome are on the Via Appia, or Appian Way, not far from the city: they are said to extend for twenty miles underground; but they cannot now be explored for more than one-fourth of that distance, and many parts have fallen in, which causes a visit to them to be attended with some danger. The passages are about eight feet in height and five in width; the graves are hollowed out of the sides, forming three tiers one above another. When the body had been deposited in the cavity assigned to it, it was walled up, and an inscription, generally confined to D.M. (*Deo Maximo*), with a few brief particulars with reference to the name, age, and calling of the occupant of the cell, was cut on the stones that formed the closure of the tomb. At intervals there are large vaulted chambers, which form a centre in which many of the passages meet, and which appear to have been used as places of worship. They are furnished with altars, and are ornamented with fresco-paintings, inscriptions, sculptured crosses, and crucifixes. Some of these chambers, or chapels, are said to have been formed by order of some of the popes of Rome. The early Christians used the catacombs as places of worship and cemeteries for their dead; but it is most probable that they were excavated and used for this purpose prior to the Christian era. The catacombs at Naples are similar in construction to those at Rome, and were used by the early Christians for the same purposes. They are adorned with fresco-paintings of great freshness of appearance, among which the palm-tree is conspicuous as an emblem of Palestine. The galleries of the Neapolitan catacombs are wider than those of the catacombs at Rome. Those at Palermo and Syracuse are characterised by greater regularity of construction, and are filled with the tombs of heathens and Saracens as well as of Christians. The catacombs of Egypt are inferior to those of Italy in size; many of them were explored by Belzoni, who brought from thence the sarcophagus of Psammetichus the Powerful, who flourished about 650 B.C., made of alabaster, and most beautifully sculptured. Catacombs of considerable extent were discovered about a hundred years since in the hill of Tarquino, about three miles from Corneto, in Italy,

the site of Tarquinii, one of the twelve republics or representative cities of the ancient Etruria. They are remarkable for the beauty of the decorations, paintings, friezes, mosaics, vases, arms, and other archaeological remains that have been discovered in them. The catacombs of Paris extend under the city for a considerable distance; they were formerly quarries, from which the stone that was used in building the old city was excavated. They have acquired the name from having been made the receptacles of skulls and bones removed from the churchyards and cemeteries within the confines of the city, which had become inconveniently crowded with human remains. The passages present a singular appearance, the bones having been arranged in the form of crosses and other patterns over the surface of the side-walls. The remnant of many of those who were so ruthlessly slaughtered in the revolution of 1792 were thrown into the catacombs.

CATAPALQUE, *kat'-a-falk* (Ital., *catafalco*, a scaffold), an elevated tomb, usually a temporary structure of carpentry, decorated with painting or sculpture, and containing the coffin of a distinguished person, round which tapers, ornaments, inscriptions, armorial bearings, &c., are disposed.

CATALECTIC, *kat-a-lek'-tik* (Gr., *katalektikos*, deficient), in Greek and Latin poetry, a verse wanting one syllable of its proper length. *Acatalectic* is applied to such as are complete, and *hypercatalectic* to such as have a syllable too many.

CATALOGUE, *kat'-a-log* (Gr., *katalogos*, from *katalogo*, I register), denotes generally a list or register of things one by one—an enumeration of particulars. It is most commonly applied to a list of the articles (arranged in lots) to be sold by auction, and to a list or register of books in a library. A catalogue of some sort is absolutely necessary in every large library; but the plan on which it may best be constructed is a subject that has given rise to much discussion, and on which much difference of opinion exists. They may all be divided into two great classes—the *alphabetical* and the *classified*; in the former the books being arranged alphabetically, according to their authors or titles; in the latter, classified in some way or other, according to their subjects. The alphabetical arrangement (which is that adopted in the library of the British Museum), possesses the advantage of being much more simple, and more easy of consultation; but students frequently require to consult catalogues for books on particular subjects, of which they know neither the author nor title. To meet this difficulty various attempts at classification have been made.

In **Astronomy**, a catalogue is a list of stars, in which their positions at a certain time are registered, according to their latitude and longitude, or right ascension and declination; and means are also given whereby the effects of aberration, precession, and nutation may be computed, and the position of the star in the heavens may be determined at any time. Many such catalogues have been made, from the time of Ptolemy downwards.

CATAPULTA, *kat-a-pul'-ta* (Gr., *katapeltes*), an engine of war of great power, used by the ancients for throwing large darts and arrows against the enemy. It resembled a strong short bow placed in a frame of wood, securely planted in the ground. The cord was attached to a flat piece of wood, which worked on a slide project-

ing to the rear. The bow was bent by the action of a small windlass at the extremity of this projection. When the cord was suddenly released from the extreme tension to which it had been subjected, the arrow was hurled forward with great force. The catapulta is said to have been invented by Dionysius, the tyrant of Syracuse, in Sicily, about 400 B.C.

CATARACT, *kat'-a-rakt* (Gr., *kata*, downwards; *rasse*, I dash), a precipice in the channel of a river, caused by rocks or other obstacles stopping the course of the stream, whence the water falls with a greater noise and impetuosity. The falls of Niagara, in America, and the Victoria Falls, on the Zambesi, in South Africa, surpass, in size and grandeur, all others in the known world.

CATASTROPHE, *kat-as-tro-fe* (Gr., *katas-trophe*, from *kata* and *strephein*, to turn), a turning about, a revolution, and generally applied to the final turn or change of events, the change which produces the final event. In ancient dramatic poetry it was applied to the fourth and last part of the play, or that immediately succeeding the catatasis; the whole drama being divided into protasis, epitasis, catatasis, and catastrophe.

CATCH, *katsh*, a form of musical composition, in the style of the canon, but generally allied to humorous words, sometimes forming violent puns. In one old fashioned catch, one singer begins, in a burlesque sentimental manner, "Ah! how, Sophia!" and another follows with "Go fetch the Indian's borrowed plume:" the effect being that one appears to say, "A house on fire," and the other replies, "Go fetch the engines."

CATHERINE WHEEL, *kath'-e-rine*, a circular window, or portion of a window, frequently found in cathedrals and churches built in accordance with the Gothic style of architecture. When the entire window is circular in form, it is generally found at the east end or in the gables of the transepts. In some of the cathedrals in France, windows of this description are found of great diameter, divided into compartments by stone tracery elaborately chiselled into a variety of forms, and sometimes by shafts radiating from a circular centre. The name is taken from the instrument on which St. Catherine of Alexandria suffered torture and death, A.D. 307, for her persistent adherence to the Christian faith.

In Fireworks, the catherine wheel is a long tube filled with an explosive compound, and coiled into a circular form, revolving as it explodes.

In Heraldry, the name is given to a toothed wheel, frequently used as a charge in coats of arms.

CAUDLE, *kaw'-ul* (Fr., *chaudeau*, from Lat., *calidus*, warm), is a kind of warm broth, composed of gruel, wine or beer, sugar and spices, once very popular as a comforter to women when confined.

CAVALIERS, *kav-a-leers'* (Fr.), in English history was the name given to those who adhered to the cause of Charles I., as distinguished from the Roundheads, or friends of the Parliament.

CAVALIER, a work of defence raised on the level of a bastion or curtain, about ten feet above the rampart of the work, with a rampart of its own about six feet in height. The height of the cavalier must depend on that of the eminence it is intended to command.

CAVATINA, *kav-at-teen'-a*, a short form of operatic air; but the term is somewhat loosely applied by modern composers, including the *aria* proper, and sometimes being preceded by a recitative.

CAVO-RILIEVO, *kai-vo-re-le-ai'-vo*, a mode of carving in relief, in which the highest surface of the object represented is only on a level with the plane of the original stone, the relief being obtained by cutting into the material. It is common in Egyptian sculpture.

CEILING, *seel'-ing* (Lat., *cælum*; Fr., *ciel*, the heaven), an expression applied to the top or covering of a room, or any lofty building of great size as a church. It is derived from the vault of heaven. The ceiling of a room is formed by nailing laths to the under surface of the joists that support the floor of the story above or the beams of a roof, and covering them with two or three coats of plaster. The ceilings of churches are often semicircular in form, and divided into large squares by beams adorned with bosses at the points of intersection, and that of the chancel is sometimes coloured blue and studded with stars. Flat ceilings are sometimes divided in this way, and adorned with painting and gilding, and those of houses of the Tudor period are frequently enriched with mouldings. The oldest flat ceiling in existence is believed to be that of Peterborough Cathedral.

CEIMELIA, *si-mé'-li-a* (Gr.), a term anciently applied to treasures or other things stored up as valuables, and in the early Church denoted the sacred vessels and utensils belonging to the church. Hence, *Ceimeliarcha*, or *Ceimelophylax*, was the officer, in ancient churches and monasteries, who had the custody of these things; and as rolls and archives were also under his charge, he was also frequently called *Cartophylax*, or *Custos archivorum*.

CELT, *selt* (Lat., *celtis*, a chisel), is the name given to certain instruments of stone or bronze, used by people in the earliest state of civilization, and found chiefly in tumuli and other early earthworks in Western Europe. The term has been somewhat loosely applied to various kinds of cutting instruments; but it is now generally restricted to chisels or small instruments of a similar character. Some of the stone celts are extremely rude and inartificial, but others are beautifully shaped and highly polished. They vary considerably in size, but are commonly about six inches in length. Bronze celts belong to a somewhat higher state of social progress, and present a greater diversity of form than the stone celt. There are numerous examples of both kinds in the British Museum.

CELTIC ARCHITECTURE, *sel'-tik*, this term is sometimes applied to the rude attempts at building in stone which were made by the Celts of Gaul and Britain. They consist chiefly of Druidical remains in the form of temples and cromlechs. The temples were huge blocks of stone set up in a circle, in a vertical position, which support others, placed horizontally upon them, as imposts or lintels. Some of these stones bear traces of the chisels, and the upright and transverse blocks were often fitted together with mortise and tenon joints.

CEMETERY, *sem'-e-ter-e* (Gr., *koimeterion*, from *koimao*, I sleep), denotes, literally, a dor-

mitory, or place for sleeping in, and was applied by the early Christians to a place of burial, as indicating their belief in a future resurrection. The name is now given to burying-grounds; and in this country is limited to such places not being churchyards. Most large towns have now extramural cemeteries, the ground being laid out in an ornamental manner, with chapels in which funeral services are held, and generally divided into consecrated and unconsecrated portions. The principal cemeteries near London are at Kensal-Green, Highgate, Finchley, New Southgate, Norwood, Nunhead, and near Bow. Woking Cemetery, in Surrey, may almost be considered as a metropolitan cemetery.

CENOTAPH, *sen'-o-taf* (Gr., *kenos*, empty, and *taphos*, a tomb), is an empty tomb, a monument erected in memory of a deceased person, apart from the body.

CENTILOQUIUM, *sen-ti-lo'-kwi-um* (Lat.), is a term applied to collections of one hundred sentences or sayings; as the Centiloquium of Hermes, containing one hundred aphorisms or astrological sentences falsely ascribed to Hermes Trismegistus, and the Centiloquium of Ptolemy, a famous astrological work.

CENTO, *sen'-to* (Gr., *kentron*, a thing of patches), is a literary composition formed of verses or passages from one or more authors, disposed in a different order, and arranged so as to bring out a different meaning. Considerable dexterity was frequently displayed in the combining of passages of different authors so as to form a regular and connecting whole. Thus there were in early times *Homero-centones* and *Centones Virgiliani*. Passages from Horace and Virgil were even so ingeniously combined as to form spiritual hymns. It was also a favourite amusement in the Middle Ages.

CENTURY, *sen-tu'-re*.—The method of computing time by hundreds of years commenced with the Christian era, and was first adopted in chronological history in France. With the ancient Romans, a century was a company of one hundred men in the army, and also a civil division of the people formed for the purpose of voting.

CERAMIC, *se-ram'-ik* (Gr., *keramos*, potter's clay), a term applied to artistic objects made of clay.

CERCELEE, *ser-sel'-e*, in Heraldry, a cross-archery, or curling at the ends. The term *reecerlee* is sometimes used.

CEREMENTS, *ser'-ements* (Lat., *cera*, wax), were cloths dipped in melted wax, with which dead bodies were enfolded when they were embalmed.

CEREMONIES, MASTER OF THE, an officer of the court, instituted by James I. to attend to the proper presentation of ambassadors, and other persons of quality, to the sovereign. The gentleman filling this office is necessarily a person of good address and master of several languages. He attends at court on all occasions of state ceremonial, and has under him an assistant master, or deputy.

CEROSTROTUM, OR CESTROTUM, *se-ros-tro'-tum*, a species of encaustic painting upon horn or ivory. The lines of the design are burned in with a cestrum, or hot needle, and filled up with wax.

CESTRUM, the style or spatula used by the ancients in encaustic painting. (See ENCAUSTIC.)

CESTUS, *ses'-tus* (Gr., *kestos*, embroidered), a fine embroidered girdle worn by the Greek and Roman women close under the breasts. It was distinct from the zone, which was worn round the loins. Homer ascribes the power of charming and conciliating love to the cestus of Venus, which was covered with alluring representations. When Juno wished to gain the love of Jupiter, she borrowed this girdle from Venus.

CHAIN MAIL, a flexible kind of armour made of hammered iron links connected together. It was much worn in the 12th and 13th centuries, and was lighter and more convenient than armour composed of steel or brass plates. It was not, however, so complete a defence against the thrust of a lance or spear.

CHAIR, *tshair* (Lat., *cathedra*, Fr., *chaire*, a pulpit), a movable seat or frame, made with a bottom of different materials, and used for persons to sit in. The term was originally applied to the pulpit from which the priest addressed the people. The place where professors and regents in universities deliver their lectures is still called the chair; as the professor's chair, the chair of natural philosophy, &c. The *curule chair* was an ivory seat placed upon a car, in which the prime magistrates of ancient Rome sat, and also those to whom the honour of a triumph had been decreed. The *sedan chair* is a vehicle in which persons are carried. It is supported by two poles, and carried by two men. Though not much used at the present day, it was greatly in vogue a hundred years ago. In Hogarth's works it is frequently represented.

CHALDEE LANGUAGE, *kal-dee'*, is the name given by some philologists, but not very correctly, to the eastern dialect of the Aramaic, of which the Syriac is the western, and which forms the northern branch of the Semitic tongues, the Hebrew, Arabic, and some other minor dialects forming the southern branch. As the language of Babylonia at the time of the Jewish captivity, it was much used by that people after their return to their own land, and, indeed, as a written language it is now known to us only through the Jews, every trace of its literature having disappeared, though it is still spoken by some of the tribes inhabiting the mountains of Kurdistan. In the Hebrew canon, several chapters in Daniel and Ezra are written in this language. (See BIBLE.) As a dialect, it is distinguished from the Syriac by its avoiding diphthongs and the vowel *o*, for which it generally has *a*; and the general accentuation of the last syllable. The mode of writing is also much less defective than in Syriac, and in forms it is poorer than both the Hebrew and Syriac.

CHALICE, *tshal'-is* (Lat., *calix*, a cup).—This term was formerly applied to an ordinary drinking-cup; but it is now only used to distinguish the cup employed in administering the Holy Sacrament. Silver is the metal of which chalices are usually made; but they are often of gold or gilt, and studded with jewels. They have been sometimes made of agate, crystal, or glass; but, on account of their fragile nature, these substances are seldom employed.

CHALLENGE. (See DUEL.)

CHAMBER, *tshaim'-ber* (Lat., *camera*), a

portion of a house or of an apartment. The term is ordinarily applied to a room intended for sleeping in.

In **Artillery**, a term applied to a part of the bore at the breech end of a piece of artillery or small-arm. It contains the powder, but is contracted, so as not to admit the shot or shell. Chambers are of different forms, some being spherical, some cylindrical, and others conical or pear-shaped. The loading and firing of chambered guns are slower than those without chambers. They are generally used when the weight of the shot or shell is great in comparison with the charge of powder. The chamber of a mine is the place, mostly of a cubical form, where the powder is confined.

CHAMFER, OR CHAUMPFER, *tcham'-fer*, in Architecture, the sloped or pared-off angle at the edge of work. It is sometimes made slightly concave, and is then known as a hollow chamfer. A chamfer terminated by a trefoil or cinquefoil is very common in mediæval architecture, and has a pleasing effect.

CHANCEL, *tshan'-sel* (Lat., *cancellus*, a screen), the name given to that part of the choir of a church in which the communion table stands, and which was formerly generally separated from the body of a church by a screen or lattice work. The term is now generally confined to parish churches which have no aisles round the choir, or chapels connected with it. Sometimes the chancel and the choir are synonymous. Before the Reformation, the service was always performed in the chancel, and at that time the clergy were held to have a special right to it. At the present day, its repairs generally fall upon the impropiator or rector, and not on the parish. The impropiator or rector has a right to the principal pew in the chancel, but he cannot erect a tablet there without the leave of the ordinary. The chancel corresponds with the *bema*, or semi-circular recess, of the ancient basilica.

CHANGELING, *tshainj'-ling* (Ang.-Sax). It was at one time a common superstition that young children were liable to be stolen or changed by fairies before being baptized; and hence they were carefully watched till that ceremony was over. It was thought that the fairies were always anxious to change their own starveling elves for the more robust children of men. The children so left were called changelings, and were known by their greater backwardness in growth or learning; hence stunted or idiotical children were regarded as changelings. There are many allusions to this superstition by Shakespeare, Spenser, Scott, and other poets. In *A Midsummer Night's Dream*, Puck says of Titania, queen of the fairies,

"She, as her attendant, hath
A lovely boy stol'n from an Indian king;
She never had so sweet a changeling."

CHANNEL, *tshan'-nel* (Fr., *canal*), a passage or place of flowing. The term is generally applied to a water-course. The deeper part of a river, through which the principal current flows, is generally called the channel. The strait or narrow sea between two islands, or a continent and an island, is also called a channel; as the British Channel, the Irish Channel, &c.

CHANT, *tshant* (Fr., *chanter*, to sing), in its most extended sense, is applied to the musical performance in churches of all those parts of the liturgy which by the rubric are permitted to be sung. More particularly, and as distinguished from singing, it is applied to that plain tune to which the prayers, litany, &c., are set in choirs

and places where they sing. The chanting of prayers has always been observed in the principal of our cathedrals. In church history we meet with different kinds of chants or songs; as the Ambrosian, introduced by St. Ambrose; the Gregorian, by Pope Gregory the Great.

CHANTRY, *tshan'-tre* (Lat., *cantaria*), was a little chapel or particular altar in a cathedral church, built and endowed for the maintenance of a priest to say or sing masses for the soul of the founder, and such others as he might appoint, and often very highly ornamented with sculpture, gilding, and painting. There were many of these in England before the Reformation; but in the thirty-seventh year of Henry VIII., the chantries were given to the king, who had power at any time to issue commissions to seize their endowments, and take them into his possession; and such as were not then seized were afterwards vested in his successor, Edward VI.

CHAP-BOOKS, *tshap'-books*, is the name given to a kind of literature that was at one time very common in this country. The designation is probably derived from their forming part of the stock in trade of the chapman or travelling merchant. They were of inferior paper and typography, and the older of them, in the early part of the seventeenth century, are printed in black letter, in the form of small volumes. Their contents were of a very miscellaneous nature, comprising lives of heroes, martyrs, and other remarkable persons; stories of ghosts, giants, witches; dream-books, &c. The *penny chap-books* were a later and an inferior class of literature. They consisted usually of a single sheet of paper, folded so as to form twenty-four pages. Their contents were chiefly narratives either in prose or verse, and were characterized by a considerable degree of broad humour, and frequently not without a goodly sprinkling of obscenity. It is said that nearly all these penny chap-books were the production of one man, Douglad Graham, who, previous to his death in 1789, was bell-man or town-crier of Glasgow.

CHAPEL, *tshap'-el*, in a printing-office is an association of the workmen for the purpose of enforcing order and regularity in the office, and settling any disputes that may arise. The president is elected by the other workmen, and is termed the "father of the chapel."

CHAPERON, *shap'-e-ron* (Fr.), a hood or cap worn by the knights of the Garter. It was formerly worn by men and women of every degree, and afterwards appropriated by the doctors and licentiates in colleges, &c. The name afterwards passed to certain little shields and other funeral devices placed on the heads of horses at pompous funerals. A person who acts as a guide or protection to a lady at a public place is called a chaperon, probably because the cap or hood was formerly worn by persons acting in a like capacity.

CHAPLET, *tshap'-let* (Ital., *ciappelletto*), a string of beads made use of by Roman Catholics and others to count the number of their prayers. Its invention is by some attributed to Peter the Hermit, by others to St. Dominick, who is said to have received one out of heaven from the Virgin Mary. (See *ROSARY*.) The term is also applied to a garland of flowers worn on the head.

In Heraldry, a chaplet is always composed of four roses, the other parts being leaves.

CHAPMAN, *tshap'-man* (Old Eng., *cheap*, a market), denotes generally a merchant; but it is commonly limited to one who deals only in small articles—one who travels the country and attends markets.

CHAPTER, *tshap'-ter* a division of a book, generally containing a separate branch of the subject, or a fresh incident in fiction.

CHARADE, *sha-ra-de'* (Fr.), is a kind of riddle, in which a word of several syllables is taken, and an enigmatical description of each of its syllables given separately, and then a similar description of the whole word. The descriptions should be so contrived as to be in some way connected together. The following is a good example, from the French:—"My first makes use of my second to eat my whole;" the first being *chien*, a dog; the second *dent*, a tooth; and the whole *chiendent*, dogs'-grass.

Acting Charades is a popular drawing-room amusement of a dramatic kind. A word of two or three syllables is selected, and then a little drama is extemporized, each scene of which indicates one of the syllables, and another the entire word. The audience have to guess the solution from the action.

CHARGE, *tsharj*, in Heraldry, the name given to figures of any kind represented on a shield, which is said to be charged with whatever figures may be depicted on it. The charges on a shield should be few and simple, and as appropriate as possible to the character or achievements of the original bearer of the coat. The simplicity of armorial bearings is a strong proof of their antiquity.

In the Army, an expression used to denote the quantity of powder which is necessary to fire a ball, shell, or bullet from any kind of cannon or firearm. The charge for different kinds of artillery, and for different purposes, varies from one-twelfth to one-half the weight of the projectile. Rifled cannon require a smaller charge than those with smooth bores; and in firing against a vessel or a body of troops at a short range, a smaller charge is needed for the same gun than would be required for breaching the walls of a fortress. The term is also applied to the onset made by one body of troops on another with fixed bayonets.

CHARIOT, *tshar'-e-ut* (Fr.), a kind of carriage employed in ancient times in war or for pleasure. We read of chariots as early as the time of Pharaoh; and they are represented in Egyptian paintings. They were frequently armed with scythes, as we read of them to have been with the ancient Britons. The ancient chariots had only two wheels, which revolved upon the axle, and were usually drawn by two horses. Among the Romans, however, there were also three- and four-horse chariots. The triumphal chariots of the Romans were often most splendidly adorned. Chariot-racing was a conspicuous feature of the classical games. In modern coachmaking, a chariot is a carriage for two persons, now considered old fashioned.

CHARIVARI, *shar'-e-va'-re*, is a French term, of uncertain etymology, but denoting properly a loud, discordant noise, produced by the beating of kettles, pans, and other domestic utensils, mingled with shouts, groans, and hisses. The term came to be applied to political squibs and satires against public men; and in this sense it was adopted as the title of a French periodical published in Paris, corresponding to our English *Punch*. It may be mentioned, that the name of the German periodical of the same kind, pub-

lished in Berlin, *Kladderadatsch*, also implies a loud, discordant noise, such as is occasioned by the beating of kettles and pans.

CHARLATAN, *shar'-a-tan* (Ital., *ciarlatano*), denotes a mountebank, quack doctor, or empiric, and is hence applied to any one who makes loud pretensions to knowledge or skill which he does not possess.

CHARM, *tsharm* (Lat., *carmen*, a verse), is a magical power or spell, by which witches and sorcerers, with the assistance of the devil, were supposed to do wonderful things beyond the powers of nature. (See *MAGIC*.) Even now, many persons who would strenuously disavow any desire to have dealings with the devil believe in the power of charms to cure warts and other ailments. Written charms worn about the person may be classed with amulets. (See *AMULETS*.)

CHARNEL-HOUSE, *tshar'-nel-hous* (Lat., *caro*, flesh), a place under a church, or in a church-yard, where the bones of the dead which were thrown up by the gravediggers were deposited.

CHART, *tshart* (Lat., *charta*), a hydrographical or sea chart for the use of navigators, exhibiting some part of the sea, or other water, with the coasts, islands, rocks, sands, bearings, &c. Under the direction of the hydrographical department of the Admiralty, charts are engraved and sold at prices below their cost. Every available chart is supplied to men-of-war when proceeding to any particular district.

CHARTULARY, *tshar'-tu-la-re* (Lat., *chartularia*), originally denoted a collection of charters, and was afterwards applied to the books in monasteries, &c., in which such charters were entered. These books were common even as early as the 10th century, and they have been of great service in historical and genealogical researches. The officer who was intrusted with the care of the charters was also called *chartulary*.

CHATEAU, *shat-o'* (Fr., *château*, a castle), a term formerly applied to the fortified residences of the French seigneurs. It is now generally applied to the large and more sumptuous country residences of the aristocracy. The word enters into the composition of the names of many towns and districts in France.

CHAUSSES, *shosse*, in the armour of the Middle Ages, defences for the legs, made of chain-mail, steel plates, or quilted cloth.

CHAUVINISM, *tsho'-van-ism*, national or individual bragging about strength or courage; Chauvin is a character in French comedy representing a bragging veteran of the empire.

CHECKY, in Heraldry, a field or charge composed of small squares of different colours, is *checky*.

CHECKMATE. (See *CHESS*.)

CHEIROMANCY. (See *CHEIROMANCY*.)

CHESS, *tshes* (Fr., *échecs*), an ingenious and intellectual game, played by two persons, each having at command sixteen pieces, made of wood, bone, or ivory, upon a board divided into sixty-four squares, eight on each of the four sides. These squares are coloured red and white, or black and white, alternately, and the pieces of each player differ in colour from those of the other. On either side there are eight superior

pieces and eight inferior. The former consist of a king, a queen, two bishops, two knights, and two rooks or castles; the latter consist of eight pawns, or foot-soldiers. On commencing a game, the king and queen occupy the centre squares of the first or royal line, and are supported in regular succession by a bishop, a knight, and a rook, while before each piece stands a pawn. In placing the board, it is always the custom, in this country, to place a white square at the player's right-hand corner; and, in arranging the pieces, the queen is always placed on a square of her own colour; consequently the combating kings and queens do not face each other. The king and queen occupy the central two squares of the first row, and on either side of them are a bishop, knight, and rook. The pawns are placed on the eight squares in front of that line. The pieces on the king's side are called the king's—as king's bishop, king's knight; while those on the queen's side are similarly styled queen's bishop, &c. The pawns take their names from the pieces before which they stand; as, the king's pawn, king's rook's pawn, queen's pawn, &c. Every superior and inferior piece moves according to certain rules. The king can only move one square at a time; the queen can move any distance, provided no other piece intervenes, either on straight lines or diagonally; the bishop only on diagonal lines, but any distance; the knight has a peculiar move over two squares, one square forward or backward and one diagonally, or one diagonally and one sideways or forward; the rook, any distance, but only in straight lines. The queen is the most powerful piece on the board, while the king, from the nature of the game, which does not admit of his exchange or capture, is the most important piece: the game depends upon his safety. The capture of any piece is effected when it is laid open to the attack of another piece, according to its peculiar move, nothing intervening, and is removed from the board, the attacking piece taking its position. The king cannot be captured, but when directly attacked by any piece or pawn, he is said to be in *check*. If he is unable to place himself out of check, to interpose a piece to parry the check, or to capture the checking piece, he is said to be *checkmated*, and the game is lost. When neither player can give checkmate, the game is said to be *drawn*. When one player has his king so situated, that not being then in check, he cannot play him without placing him in check, and at the same time has no other piece or pawn to move instead, he is said to be *stale-mated*, and the game is considered drawn. The game of chess is very ancient, and there is considerable dispute as to its origin. It seems to have been known immemorially in Hindostan by the name *Chaturanga*, or the four members of an army; namely, elephants, horsemen, chariots, and foot-soldiers. Since that time the game has undergone many alterations. It passed into Persia from Hindostan, and then into Arabia, where it was called *Shatrang*, or the king's distress. In the 8th century the Arabs introduced the game into Spain, and from thence it passed into the rest of Europe. Chess was unknown to the ancient Greeks and Romans, but it was played in England before the Norman conquest. The Eastern game differs in several peculiar points from the game played in Europe, but resembles the game played by the Saxons. Many wonderful feats of "blind-fold chess," have recently been performed, that is, playing eight, ten, or even more games simultaneously

without seeing the board and trusting entirely to memory for the position of the pieces.

CHEVALIER, *tshé-val-er'*, in Heraldry, a horseman armed at all points.

CHEVAUX DE FRISE, *shév'-o de freez* (Fr., horses of Friesland), long beams of wood or iron, bristling with spikes, that are passed through the beam at regular intervals, in alternate directions, at right angles to each other. They are used to defend the ditch of any fortification during an attack, and to impede the advance of a storming party when entering a breach. The origin of the name is uncertain; but it was probably first used by the Dutch during their protracted but successful struggle against Philip II. of Spain in the 16th century.

CHEVRON, *shév'-ron* (Fr., *chevron*), in Heraldry, one of the nine honourable ordinaries, occupying a third part of the field. It represents the rafters of a house, and shows that the person to whom the coat of arms in which it occurs was first granted was the founder of his family, or had achieved some important and honourable undertaking. The diminutives of the chevron are the chevronel and the couple close.

In Architecture, a zigzag moulding, a peculiar characteristic of Norman architecture.

CHEVRONS, stripes worn on the arm to distinguish the various grades of non-commissioned officers. The sergeant-major wears four stripes, sergeants three, corporals two, and lance-corporals one. Light infantry, the light and grenadier companies of all regiments, and the guards and fusiliers, wear the stripes on both arms. They are composed of gold lace or white braid in the regular army; but in the volunteer service anything is allowed except gold lace. The stripes are worn with the point downwards, above the elbow, and are thus distinguishable from good-conduct stripes, which are worn with the point upwards, below the elbow.

CHEVY CHASE, *tshév'-e-tshais*, the name of one of the most famous of the old English ballads, narrating a hostile encounter that took place on the Scottish border between the two warlike families of Percy and Douglas. Percy, earl of Northumberland, had vowed to hunt for three days in the Scottish border without descending to ask leave from Earl Douglas. He had with him 1,500 men, and Douglas brought against them 2,000. In the middle of the contest the two earls met hand to hand. After fighting for some time, Douglas was pierced to the heart by an English arrow, and Percy immediately afterwards fell by a Scottish spear. Although the leaders were thus both slain, the battle still raged with great fury, till only 53 of the English and 55 of the Scottish remained. The event referred to in the ballad, though apparently different from the battle of Otterbourne, which took place in 1388, is probably the same, or at least the tragical circumstances attending the latter have been incorporated in it. The beauties of this ballad have been criticised by Addison in the "Spectator" (Nos. 70 and 74); and Sir Philip Sidney said of it, that he never heard the old song of Percy and Douglas but his heart was more moved then by a trumpet. There are two versions of this ballad, an ancient and a more modern (the latter probably dating from the early part of the 17th century), both of which are given in Percy's "Reliques of Ancient English Poetry."

CHIARO-OSCURO, or CHIARO-OSCURO, *ke-ar'-o os'-ku-ro*, *ke-ar'-o-sku'-ro* (Ital., *chiaro*, light; *oscuro*, dark), that branch of painting which has for its object the combination and arrangement of the light and dark parts of a picture to the best advantage. Relief and depth, and what is generally called the *effect* of a picture, are produced by chiaro-scuro. Leonardo da Vinci was the first who reduced the art of chiaro-scuro to a system. Correggio afterwards improved it practically; and it is considered to have reached perfection under Titian.

CHIEF, *tsheef* (Fr., *chef*, from Gr., *kephale*, the head), denotes the highest in office or rank, the head or principal part of anything.

CHIEF, in Heraldry, one of the nine honourable ordinaries, occupying the upper part of the shield and a third part of the field. When any charge or charges are borne in the upper part of the field, they are said to be *in chief*.

CHIEFTAIN, *tsheef'-tan* (Old Fr., *chefetain*, from *chef*, chief), is the leader, captain, or chief of a troop, army, or clan, but generally of the last. The chieftains of the Highland clans of Scotland were the patriarchal and feudal heads of their respective clans. (See CLANS.)

CHIGNON, *sheen'-yon*, the back hair of ladies, worn as a large mass hanging down on the neck. The fashion prevailed in England from 1866 to 1875.

CHIMERE, *ke-mair'*, the upper robe worn by a bishop, to which lawn sleeves are now generally attached. It is now made of black satin, but in the early times of the English Church, was of a scarlet colour.

CHIMES, *tshimes* (Dan., *kimer*, to tinkle), a peal of musical bells placed in a church-tower, and either rung by hand or by machinery contrived for the purpose. In the ordinary art of bell-ringing, melody is never thought of; mechanical order and succession are the only results aimed at. In Belgium and Holland there are some very perfect chimes.

CHINESE ARCHITECTURE, *tshi'-nceze*, The architecture of the Chinese is peculiar to China, differing entirely in form and ornamentation from that of any other Eastern nation. The materials that are used in building consist chiefly of marble, stone, wood, brick, bamboo, and tiles of porcelain, which are glazed and coloured. The erection of all buildings in China, whether for public or private purposes, is carried on under the supervision of a surveyor; and the rank of the person who is to inhabit it has much to do with the form and size of the private dwelling-house. These consist principally of a ground floor and first floor; but houses of many floors have been sometimes built, reaching 200 feet in height. A great quantity of wood is used in building, and is richly coloured and relieved with gilding, so that the houses present a gay and picturesque appearance. The walls of the apartments on the ground-floor are of tolerable solidity, generally pierced with square or long and narrow windows, which are often filled with elaborate trellis-work. On these walls wooden columns are erected to support the roof, which is formed of bamboo, and for the most part turned up at the edges. The roof is sometimes made in two parts, resembling one roof rising out of another. The windows and doors are often circular in form. The walls are

plastered and decorated with panels containing paintings and inscriptions in the Chinese symbolic characters. Balconies are generally formed in front of the apartments on the first floor, the front of which consists of trellis-work. The royal palaces are of great extent, consisting of a series of courts, with galleries and halls of audience beautifully painted. The last court in the series is set apart as the residence of the Emperor. The palace at Pekin is said to occupy an area about 1,080 yards in length by 840 yards in breadth. The *Yuen-ming-yuen*, or Summer Palace, near Pekin, which was plundered by the French and burned by the British in 1860, was surrounded by pleasure-grounds filled with beautiful buildings devoted to various purposes. The tall towers commonly known as pagodas, but named *taas* by the Chinese, are remarkable structures; not temples, as sometimes supposed, but memorials of great personages or events. They are composed of a number of stories, each reduced in width, with a gallery around it, and a projecting roof turned up at the corners, at which bells are suspended. The pagodas are usually built of brick, and covered with glazed tiles. The famous porcelain tower at Nankin, destroyed by rebels in 1853, was about 200 feet high, and had nine stories and about 150 bells. Halls of ancestors and monumental memorials are spacious buildings found in most large towns. In building a house, the Chinese builders construct the roof first, supporting it on temporary pillars, which are removed as the permanent fabric is built. In palaces and temples, coloured and glazed bricks and tiles are freely used; but yellow is prohibited under penalty of death to the builder for any edifice except a royal palace.

CHINESE LANGUAGE AND LITERATURE.—The Chinese language belongs to that class of tongues of Eastern Asia that are commonly termed monosyllabic, that is, in which each word is pronounced by a single movement of the organs of speech, and each expresses a complete idea or object. The words all terminate either in a vowel or diphthong, or a nasal sound. Of such words or roots there are about 450 in the language. Many of these words, however, are differently pronounced or accentuated—some of them in four or five different ways, and having as many different meanings. In this way the number of roots or words is increased to about 1,200. There are, besides, many words that, with the same pronunciation, express very different things. The words undergo no changes of form, and the want of conjugation or declension is made up by particles, or by the position of the words in a sentence. The construction of the sentence is thus an important part of Chinese grammar, as upon it the meaning mainly depends; indeed it has been said that Chinese grammar is wholly syntax. There are numerous dialects of the Chinese, which is said to be spoken most purely and correctly at Nankin; but the same idiom, known as “the language of the mandarins,” is spoken by the educated classes throughout the empire. This mandarin dialect is marked by the almost entire absence of consonantal terminations, *n*, *ng*, and *h* being the only ones admitted. The provincial dialects of the south, however, have largely preserved the finals *k*, *m*, *p*, and *t*, and in one or other of them nearly all the five sounds of the letters of our alphabet are found. In Chinese, the alphabet is not composed of letters, but each word has a certain character

peculiar to itself; and hence the number of characters corresponds with the number of words in the language. As the same words differently pronounced express different objects, the number of written characters must necessarily correspond; and hence it is said that the number of characters in the language exceeds 40,000. In its origin the Chinese language is hieroglyphic or pictorial, and to the original characters a number of symbolical and conventional signs have been added; by the union of which hieroglyphs and symbols, with an imperfect indication of the sound, the greater number of the Chinese characters are composed. Native grammarians divide their characters into six classes; the first comprising simple representations of sensible objects; as the sun, moon, mountain, tree, &c., and including 608 characters. The second class includes such as are formed by the union of two or more simple hieroglyphs, which give a more or less clear idea of the meaning intended to be conveyed; as the sun and moon combined give the idea of light; mouth and bird, that of song. Of this class there are 740 characters. The third class is composed of such as indicate a certain relation of place; as above, below, the numerals, &c., of which there are 107. The fourth class comprises such characters as, by being inverted, convey a contrary meaning; as right, left, standing, lying, and contains 372. The characters of the fifth class are termed borrowed characters, as expressing abstract ideas or mental acts by means of representations of sensible objects; as a heart signifying the spirit, or a room, a woman; of these there are 598. The sixth class comprises those that are composed of a hieroglyph and a mark representing the sound. Almost all the names of animals, trees, plants, and many other objects which it would be too difficult to represent hieroglyphically are indicated in this way; their number is given at 21,810. These, however, are merely repetitions of those of the other five classes; so that the entire number of Chinese characters may be reduced to 2,425; and if one has learned these, he may be said to know all. Of the great number of characters that are to be found in Chinese dictionaries, amounting to about 40,000, not more than a tenth part are in common use. In the arrangement of their dictionaries, the Chinese select a certain number of characters, usually about 214, which serve as a sort of key, and answer the same purpose as the letters of our alphabet. The *Chinese Literature* is undoubtedly the richest, and, in a geographical, historical, and ethnographical point of view, it is the most important of the whole of Asia. The printed catalogue of the library of the Emperor Kein-long consists of 122 volumes; and a selection of the Chinese classics, with commentaries and scholia, begun by command of the same monarch, is said to comprise 180,000 volumes, of which, in 1818, 78,731 volumes had appeared. In the five canonical or classical books called the "King" are contained the oldest specimens of Chinese poetry, history, philosophy, and jurisprudence, some portions of which are probably among the oldest written monuments of the human race. They were collected from various sources by Confucius in the 6th century before Christ; and in this collection they have been handed down to us with apparent fidelity. The five "Kings" are—1, The "Y-king," or Book of Changes; 2, the "Schu-king," or Book of Annals, which is imperfect, comprising fragments of the early history of the people; 3, "Schi-king," the Book of Songs;

4, "Tschün-thsieu," the History of certain Kingdoms, from 770 B.C. to the time of Confucius; 5, "Li-ki," or Book of Ceremonies, which contains a series of laws and directions extending down even to the minutest details of life. The "Tscheu-li," which has been translated into French by Biot is a kind of official handbook of the old Chinese empire. Next to the "Kings" in value and importance are the "Sse-schu," or the four books which were written by Confucius and his disciples, and are to be regarded as the most certain sources for information regarding that important school of philosophy which has in so marked a manner affected the whole intellectual and political condition of the Chinese. These four books are generally known as the works of Confucius, and have been translated into various languages—into English by Collie (Malacca, 1828), and the eminent missionary and Chinese scholar, Dr. Legge, has translated them and the five "Kings," with elaborate notes. To these books numerous scholia, commentaries, and paraphrases have been written. Almost contemporary with Confucius was Lao-tse, also the founder of a wide-spread school of philosophy. In mythology they have "The Book of the Mountains and Seas" and the "History of the Gods and Spirits." In jurisprudence, worthy of special notice is the general collection of laws and the criminal code of the present ruling dynasty. The Chinese literature is also very rich in medical works, and works on natural history, astronomy, uranography, geometry, agriculture, war, music, and all branches of technology and mechanics. In philology, the first rank is due to their dictionaries, which have been prepared with great diligence, and examples collected out of the whole treasury of Chinese literature. The greatest work of this kind is the dictionary of the Emperor Kang-hi, which is now regarded as the highest authority for the form, pronunciation, and signification of the characters. Equally rich and valuable is the encyclopædic literature of the Chinese; among which is the work of Matuan-lin (A.D. 1300), entitled "Wen-hien-thong-khao"—i.e., an accurate examination of the ancient documents, with rich supplements—presenting an inexhaustible mine of the best materials for a thorough knowledge of the Chinese and the neighbouring races, from the oldest to the most recent times, in every department of life. But the most valuable department of Chinese literature is undoubtedly the historical and geographical, which are absolutely indispensable to a thorough knowledge of Upper Asia. Sse-ma-thsian (B.C. 100) compiled his "Sse-ki," or Historical Memorials, from every available source, and gives the history of China from B.C. 2637 to the commencement of the dynasty of Han, in the second century before the Christian era. This work has been continued by the different dynasties, and forms a complete collection of the annals of the empire down to the end of the last dynasty of Ming, A.D., 1643. The entire collection of the official annals from 2698 B.C. to A.D. 1645, a period of 4,343 years, and comprising 3,705 books, is to be found perfect in the library of Munich. Amongst their other labours, the Chinese have by no means neglected poetry, of which there are voluminous collections that have yet to be made known to Europe. As lyric poets, the names of Tu-su and Li-thai-pe, who flourished about the 8th century, are specially famous. The romances of the Chinese are not characterized by any great flights of the imagination, but are

valuable as giving an insight into the domestic life, and the modes of thinking, feeling, and acting of the people. Their dramatic poetry follows peculiar rules, and approaches partly the romantic plays of the Germans, partly the *commedie delle arti* of the Italians. They have also a kind of dialogue novels, which form a subordinate species of drama. The richest collections of Chinese books in Europe are at Paris, London, Berlin, Munich, and St. Petersburg. We possess as yet no satisfactory history of Chinese literature. The Chinese themselves have numerous works of this class; but they are very meagre, and are almost entirely confined to bibliographical and critical sketches.

CHINESE WHITE, is a white oxide of zinc used in the arts as a pigment and substitute for preparations of white lead.

CHINOR, *chin'-nor*, a musical instrument with thirty-two strings, in use among the ancient Hebrews.

CHIRURGERY, *ki-rur'-je* (Gr., *cheir*, a hand, and *ergon*, a work), is a term sometimes used in place of surgery, from surgical operations being performed by the hand.

CHIVALRY, *tshiv'-al-re* (Fr., *chevalerie*, from *chevalier*, a knight or horseman), is a term applied to the orders of knighthood established during the Middle Ages in almost all the kingdoms of Europe, and whose laws, rules, and customs are still to be found largely pervading the manners and customs throughout Europe. Though chivalry first assumed importance in the 11th century, it was far from being, as many have supposed, an invention of that period, but sprang naturally and by degrees out of the feudal system that had long prevailed over a great part of Europe. Its origin is to be traced to the feudal mansions of the barons, where young men were trained to the occupation of the warrior, and instructed in the relations that subsisted between the vassal and his lord. By degrees the influence of the Church manifested itself, and religious ceremonies were mingled with those by which a young man was admitted to the rank of a warrior. To the influence of the clergy are to be attributed in great measure those high moral principles that characterized the spirit of chivalry, and were so far in advance of the then condition of lay society in general. The education of a knight was briefly as follows:—The young and noble stripling, generally about in his 12th year, was sent to the court of some baron or knight, where he spent his time in acquiring the use of arms and attending upon the ladies. The respect for female character, which was one of the marked features of chivalry, was one of the characteristics of the ancient German tribes, and is mentioned by Tacitus. When advancing age and experience in the use of arms had qualified the page for war, he became an *escuyer*, or esquire, so called from *escu*, or *scudo*, a shield, because it was part of his duty to carry the shield of the knight whom he served. The third and highest rank of chivalry, was that of knighthood, which was not conferred before the 21st year, except in the case of distinguished birth or great achievements. The individual prepared himself by confessing, fasting, &c.; religious rites were performed, and then, after promising to be faithful, to protect ladies and orphans, never to lie or utter slander, to live in harmony with his equals, he received the *accolade*, a slight blow on the

neck with the flat of a sword, from the person who dubbed him a knight, and who, at the same time, pronounced a formula to this effect:—"I dub thee knight, in the name of God and St. Michael (or in the name of the Father, Son, and Holy Ghost). Be faithful, bold, and fortunate." A warlike spirit, an undefinable thirst for glory, and a lofty devotion to the fair sex (emblematical in the philosophy of chivalry of the ideal of beauty and purity), were the great ideal characteristics of chivalry. The crusades gave a more religious turn to the spirit of chivalry, and made the knights of all Christian nations known to each other. It must be admitted, however, that the practice of the knights felt far short of the chivalrous ideal. Licentiousness and oppression of the peasantry and vassals were but little restrained by the romantic professions of the times. Chivalry was at its height between the 11th and the 14th centuries. It decayed with the decline of feudal institutions, in the 15th century, and in the 16th it had almost ceased to exist.

CHLAMYS, *kla'-mis*, an outer garment worn by the ancient Greeks and some Oriental races. It is made of fine wool, variegated in colour, and richly ornamented. It was twice as long as it is wide, and the corners of the shortest side were fastened to the chest by a clasp; the chlamys worn by boys were usually yellow; that by the military, scarlet; and the chlamys worn by women was commonly ornamented with figures and rich borders.

CHOIR, *quire* (Gr., *choros*; Lat., *chorus*), is that part of a church or cathedral where the singers or choristers chant or sing divine service. It is also applied to those whose special duty it is to perform the service to music. Every choir is divided into two parts, stationed on each side of the choir, in order to sing alternately the verses of the psalms and hymns, one side answering to the other.

Choir-Screen.—The screens often very richly ornamented, which divide the choir from the side aisles.

Choral Service.—The musical service of the Church of England, celebrated as in cathedrals, when all those parts of the service are sung as ordered by the rubrics.

CHOPINE, *tcho'-pine*, a high clog or slipper, introduced into England from Venice in the latter part of the 16th century. They were covered with leather of various colours, and frequently painted and gilded. The height was sometimes half a yard, and to walk in them must have required as much training as walking on stilts; but in Venice the height of the chopin distinguished the quality of the ladies. Hamlet says to one of the players, "Your ladyship is nearer to heaven than when I saw you last by the altitude of a chopine."

CHORAGIC MONUMENTS, *ko-ra'-jik*. In Athens, a tripod was given to the choragus, or musical leader, who had exhibited the best performance. A whole street, known as the "street of the tripods," was formed by these monuments. The monument of Lysocrates, popularly known as the "lantern of Demosthenes," which has been frequently imitated in this country in memorial monuments, was of this character.

CHORALE, *ko-ra'-le*, a musical term, adopted from the German, and applied to a melody to which psalms or sacred hymns are sung in public worship by the whole congregation in unison.

CHORD, in Music, the harmonious combination of three or more musical sounds. Before the

introduction of simultaneous sounds, it was solely applicable to a distended sonorous string; but after the discovery of *counterpoint*, and the formation and establishment of various combinations, a general term became necessary to express those combinations, and that which before applied only to a single string was now borrowed, and its sense extended to a union of the sounds of several strings, pipes, or voices. In practical music there are several kinds of chords; *i.e.*, the *fundamental chord*, consisting of the third, fifth, and eighth of the fundamental bass, or their inversions:—the *accidental chord*, which may result from either of two causes—*viz.*, *anticipation* or *retardation*; by *anticipation* when their construction assumes some note or notes of a succeeding chord (a chord not yet struck); by *retardation* when one or more notes are, by *suspension*, carried into the composition of the succeeding chord;—the *anomalous*, or *equivocal chord*, in which some interval or intervals are greater or lesser than those of the fundamental chord;—and the *transient chord*, in which some intermediate notes are introduced to smoothen the transition from one chord to another, which do not form any component parts of the fundamental, and cannot be justly called either anticipations or suspensions.

CHORUS, *kor'-us* (Lat.), among the ancients, denoted a number of singers and dancers employed on festive occasions, and also in the performance of plays. During the most flourishing period of Attic tragedy, the chorus consisted of a group of male and female personages, who remained on the stage as bystanders or spectators, and during the intervals of the acting, chanted songs relating to the subject of the play. They sometimes even took part in the performance, by advice, comfort, consolation, or dissuasion. In early times it consisted of a great number of persons, sometimes as many as fifty; but it was afterwards limited to fifteen. The leader of the chorus was called *coryphæus*, and sometimes the chorus was divided into two parts, which sang alternately. With the decline of ancient tragedy, the chorus also fell into disuse.

In Music, the term is applied, in its general sense, either to a composition of two, three, four, or more parts, each of which is intended to be sung by a plurality of voices; or to the performers who sing those parts, and form what is called a *chorus*, or choral part of a band.

CHRIST, PICTURE OF.—In the Roman catacombs are many symbolical pictures of Christ, but only two (in the Calixtine and Pontine catacombs) which profess to be actual likenesses. There are ecclesiastical traditions that Luke, the evangelist, painted a portrait, that a faithful resemblance was impressed on a handkerchief placed on the Saviour's face, and that at the crucifixion, a holy woman, St. Veronica, obtained a likeness by some miraculous agency. An antique mosaic, probably of the third century, preserved in the *Muses Christianæ* of the Vatican, presents a face in profile, marked by great earnestness of expression and regularity of features. The face of Christ generally depicted in Christian art is purely ideal.

CHRIST-CHURCH COLLEGE, OXFORD, *krist'-tshursh*, owes its first foundation to Cardinal Wolsey, who, in 1525, obtained from Clement VII, a bull for the suppression of twenty-two monasteries, the aggregate revenues of which were estimated at nearly £2,000, in order to found

and endow a college at Oxford, on the site of the priory of St. Frideswide. It was to have consisted of a dean, sub-dean, 100 canons, 10 public readers, 13 chaplains, an organist, 12 clerks, and 13 choristers, and was to have been called the "College of Secular Priests;" but afterwards the name was changed to "Cardinal College." Before its completion, the cardinal had fallen into disgrace; and in 1532 the society was refounded by the king, under the title of "King Henry VIII.'s College." In 1545 this was again suppressed; and in the year following it was re-established under the name of the "Christ-Church Cathedral in Oxford," for the maintenance of a dean, 8 canons, 8 chaplains, a schoolmaster, an organist, 8 clerks, and 8 choristers, together with 100 students. By ordinance of the commissioners, under 17 and 18 Vict. c. 81, the number of canons is reduced to 6, of students to 80 (of whom 28 are senior students with permanent tenure) and 52 junior students of whom 21 are to be elected from Westminster school, and hold their places for seven years; the remaining 31 studentships being open to all candidates who have not exceeded their eighth term from matriculation, and are tenable for five years. Every third junior studentship is to be given for proficiency in mathematics and for proficiency in physical sciences alternately.

CHRIST-CROSS ROW, was the name given to the letters of the alphabet arranged in the form of a cross, and used in the instruction of children.

CHRISTMAS-BOX, a small sum of money or other present given to servants and others on the day after Christmas, which is hence called *Boxing-day*. The practice was founded on the pagan custom of new-year's gifts; and, until recently, it had spread to such an extent as to have become almost a national grievance. In 1836, the Secretary of State for Foreign Affairs issued a circular to the different embassies, requesting a discontinuance of the customary Christmas-boxes to the messengers of the foreign department and others; and since that time the practice has somewhat decreased. Tradesmen now almost generally close their shops on *Boxing-day*, so as to avoid importunities. (See *BOXING-DAY*.)

CHRISTMAS CARDS.—Within the last few years, a practice has sprung up of sending to relatives and friends ornamental cards, with designs and mottoes, texts or verses, expressive of affection. Millions of these cards now pass annually through the Post Office; and the greater number are very beautiful productions of chromolithography, these productions giving occupation to artists of high talent. They are produced cheaply and are yearly advancing in favour. Similar cards are also sent on birthdays, and at Easter.

CHRISTMAS CAROLS. (See *CAROLS*.)

CHRIST'S COLLEGE, CAMBRIDGE, was founded in 1505, by Lady Margaret, Countess of Richmond and Derby, mother of Henry VII., for a master, twelve fellows, and forty-seven scholars. Edward VI. added one fellowship and three scholarships, and several others were added by subsequent benefactors. By recent arrangements, the scholarships have been consolidated and greatly improved in value; and at present the college consists of a master, fifteen fellows



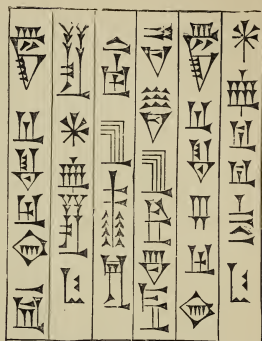
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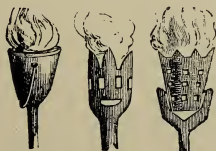
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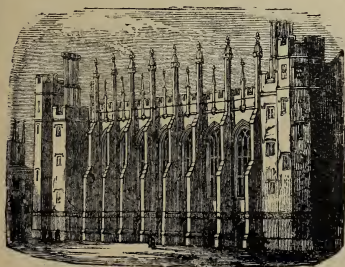
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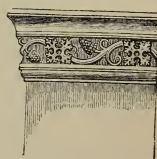
CHEVAUX DE FRISE.



CHRIST'S HOSPITAL, LONDON.



CALTROP.



CORNICE.

(of whom ten must be in priests' orders), and twenty-nine scholars. The fellowships and scholarships are now open to all the Queen's subjects, without restriction or appropriation.

CHRIST'S HOSPITAL, LONDON, commonly called the Blue-coat School, from the dress worn by the boys, which consists of a blue coat or gown, yellow petticoat and stockings, a red leather girdle round the waist, and a clergyman's band round the neck. It was established on the site of the Grey Friars' monastery, by a charter granted by Edward VI., 26th June, 1553, as a hospital for poor fatherless children and orphans. In 1672, the mathematical school was founded by Charles II. for forty boys. The greater part of the income of the school is derived from legacies subsequent to the original charter. The governing body is composed of the mayor, aldermen, and twelve common councilmen of the city of London, and contributors of £400 each to the hospital funds, amounting in all to upwards of 500. Boys are admitted between the ages of seven and nine, and must leave at fifteen, unless they be "King's boys" or Grecians, *i.e.*, in the highest class. Eight Grecians are sent, on various scholarships, to Oxford and Cambridge. The right of presentation is vested in the governors. The lord mayor has two presentations annually; each of the aldermen one; and the other governors one in every three years. The foundation-stone of the New Hall was laid in 1825, and it was publicly opened in 1829. A branch school was established at Hertford in 1683 for the education of younger children, girls as well as boys; the latter being maintained and educated until they are capable of being received into the London school. As in some other public schools, the recipients of the benefits are of a class socially higher than those for whom the institution was originally intended. In 1881, the total expenditure for general purposes amounted to £57,384 os. 8d. Within the same period the average number of children maintained and educated in the Hertford and London establishments was 1,177, and the average expenditure per child £48 15s. 1d.

CHROMATIC, *kro-mat'-ik*, in Music, is a term applied to a series of notes at the distance of a semitone from each other. Ascending chromatic passages are formed by the whole tones of the diatonic scale being raised by a sharp or natural, according to key, and descending passages by their being lowered by a flat or a natural.

CHROMATYPE. (See PHOTOGRAPHY.)

CHRONIC, *kron'-ik* (Gr., *chronos*, time), a term applied in medicine to such diseases as are of long duration, as contradistinguished from *acute* complaints, which are those that soon terminate either in recovery or death.

CHRONICLE, *kron'-i-kl* (Gr.), a history in which the events are narrated in the order of time. It is nearly synonymous with annals, the only distinction between the two being that chronicles are generally more full and connected.

CHRONOGRAM, *kro'-no-gram* (Gr., *chronos*, and *gramma*, a letter), a verse or sentence, certain letters of which are in larger characters than the rest, to denote the date (in Roman numerals) of the event to which it relates. If in verse, it is known as *chronostichon*.

CHRONOLOGY, *kro-nol'-o-je* (Gr., *chronos*,

time, and *logos*, discourse), the science which treats of the various divisions of time (whether relating to astronomical or other events) distinguishing its several parts—such as centuries or ages, years, months, weeks, days, hours, &c., and of the order of the succession of events. (See **CYCLE**, **ERA**, &c.)

CHRYSELEPHANTINE, *kris-el-ef-an'-tine* (Gr., *chrysos*, gold, and *elephas*, ivory), applied to a style of statuary extensively practised among the Greeks, in which the figures were made of gold and ivory. The colossal statues of Pallas, of the Parthenon, and the Olympian Jupiter, both by Phidias, were executed in these materials. About 100 statues of this kind are mentioned by ancient writers.

CIBORIUM, *si-bor'-i-um*, was a name originally given to the husks of an Egyptian bean, and came afterwards to be applied to the canopy with which the altar was covered. The term is also applied to the pyx or box in which the host is preserved.

CICERONE, *tsitsh-e-ro'-ne*, a name first given in Italy to those persons that act as guides to strangers in showing them the sights of Rome and other cities. The term is said to be derived from Cicero, and to have been given to them on account of their great garrulity. The word has now come into general use, and is applied to any one who points out the interesting objects of a town to strangers.

CICISBEO, *tshe-tshiz-bai'-o* (Ital., a gallant), a term applied to a class of persons in Italy who constantly attend upon married ladies. In the higher ranks of society it was formerly the custom for every married lady to have her cicisbeo, who escorted her in her walks, and accompanied her to private parties and public amusements. The practice has now almost entirely disappeared.

CID, *síd* (Arab., *seid*, lord), is the name of an epic poem of the Spaniards, celebrating the exploits of their great national hero Rodrigo Diaz, commonly called the Cid. The poem is supposed to have been written in the 12th or 13th century, but nothing is known of its author. Nearly 200 old ballads relating to the Cid are extant, probably most of them written in the 16th century, but some evidently of much greater antiquity. Southey wrote a work, the "Chronicle of the Cid," founded on this poem; and Lockhart's "Ancient Spanish Ballads" have a relation to the same source.

CINERARY URNS. (See **VASES**.)

CINQUE CENTO, *tchen-ke tchent'-o* (Ital., five hundred), a technical term used to designate the style of art which arose in Italy after the year 1500. The subjects of paintings in this style are generally taken from heathen mythology or history.

CINQUE-FOIL, *sank'-foil*, in Architecture, an ornamental sinking or a perforation of five points or leaves, or in five compartments, frequently used in the tracing of windows and panelings.

In Heraldry, a common bearing, usually depicted with the leaves issuing from a ball as a centre point.

CIPHER, *si'-fer* (Arab., *sifr*, empty or destitute of), is a term applied to the figure 0. It is sometimes also applied to arithmetical characters generally; and hence the verb "to cipher"

signifies to perform an arithmetical operation. A cipher is also a fanciful arrangement of the initials of a name, sometimes adopted by artists and others in order to distinguish their works, and very frequently as headings for notepaper, in place of a crest.

CIPHER-WRITING. (See CRYPTOGRAPHY.)

CIRCENSIAN GAMES, *sir-sen'-se-an* combats in the Roman circus, said to have been established at Rome 732 B.C., by Romulus. The celebration continued from the 4th to the 12th of September. The name Circensian was given by Tarquin.

CIRCLE, MAGIC, the circle of space within which magicians were wont to work their enchantments, and which were believed to protect them from the evil spirits which they were supposed to raise.

CIRCULATING LIBRARY. (See LIBRARY.)

CIRCUMFLEX, *sir'-kum-flex* (Lat., *circum*, round, and *flecto*, I bend), an accent marked thus ^, placed over a syllable to denote that its sound is intermediate between acute and grave. It is seldom used in English in the present day except to show the omission of a letter, which makes the syllable long and open, as *Bâle* for *Basle*.

CIRCUMLOCUTION, *sir-kum-to-ku'-shun* (Lat., *circum*, and *loquor*, I speak), a circuitous mode of expression, used either when the proper term for expressing an idea does not naturally and immediately occur, or when a person wishes to avoid expressing in direct terms something disagreeable or inconvenient.

CIRCUMNAVIGATION, a sailing round, generally applied to sailing round the world, the first who accomplished the feat was Magathaens, a Portuguese, in 1519.

CIRCUMVALLATION, in Fortification, a series of works, generally a chain of redoubts, to protect a besieging army from an attack from without.

CIRCUS, *ser'-kus* (Lat.), a large enclosed space of oblong form, adapted for horse and chariot racing, sports to which the ancient Romans were much addicted. The circus was also used for athletic games and the contests of wild beasts. There were many buildings of the kind in Rome, of which the *Circus Maximus* and *Circus Agonalis* were probably the largest. According to different authorities, the former was capable of holding between 200,000 and 400,000 spectators. The circus of Nero was begun by Caligula; part of its site is now occupied by the Basilica of St. Peter. All the circi which existed in ancient Rome are completely destroyed; but near the tomb of Cæcilia Metellus, not far from the Appian Way, about two miles from Rome, there is a circus, commonly called the *Circus of Caracalla*, in a high state of preservation; it is small in size, but probably resembles closely the larger circi in general form. In length, the *Circus of Caracalla* is about 1,300 feet, and 300 feet wide. The long sides are not quite parallel; one end is semi-circular, and the *carceres*, or covered stalls, furnished with gates, are there situated. In the *carceres* the chariots and horses remained till the starter gave the signal, when the gates were opened. Along the sides, and

round the opposite end from the *carceres*, were ascending ranges of stone seats for the spectators. There is a bas-relief in the British Museum which gives a very tolerable notion of the appearance of an ancient circus. The modern circus does not resemble that of the ancients; it is small in size, and is generally a temporary erection, consisting of a ring surrounded by raised seats for the spectators. The principal amusements are feats of horsemanship and acrobatic displays.

CITADEL, *sil'-a-del* (Ital., *citta-dillo*, a little city), a strong fort in or near a tower. Its possession enables the garrison of a town to keep the inhabitants in subjection, and in case of a siege it affords a place of retreat for the defenders.

CITHARA, *sith'-a-ra*, an ancient musical instrument, supposed to have resembled the lyre; its precise construction, however, is now unknown. The cithara had at first only three strings; but the number was increased at different times to eight, nine, and, lastly, to twenty-four.

CLAIRVOYANCE. (See SOMNAMBULISM.)

CLAM, in Heraldry, a clam signifies an escalop or cockle shell, which is supposed to represent that the wearer thereof has been on long voyages, or in the crusades.

CLAN, *klan* (Gael., *clann*; Manx, *cloan*, children or descendants of a common ancestor), a body of men united together by common ancestry, or other tie. It is more particularly applied to those associations or tribes in the Scotch Highlands which are united together by one common name, and are supposed to be descended from a common ancestor, of whom the chief is the lineal representative. This system of clanship was essentially patriarchal, and similar to that which still exists among the nomadic tribes of the East. It was thus entirely different from the feudal system formerly prevailing in Europe, by which the vassals were bound to the soil; and hence it sometimes happened that the chieftship and the estates occupied by a clan were vested in different persons. The Highland clans formerly enjoyed a bad fame among the Lowland Scots for their predatory habits. There are 45 recognised clans.

CLAUQUE, *klak* (Fr., *claque*, to clap the hands), is the name given to the means by which public performances are secured a favourable reception, by means of hired applauders. In Paris, one M. Santon established, in 1820, an office for the assurance of dramatic success, and was thus the originator of the so-called Parisian claque.

CLARE COLLEGE, CAMBRIDGE, *Klair*, was founded by Richard Badew, in 1326, under the name of University Hall. It was burned down in 1338, and rebuilt and endowed by Lady Elizabeth, sister and co-heir of Gilbert, earl of Clare. At present it consists of a master, eight senior and ten junior fellows, besides scholars, students, and foundation-servants (one-third must be in holy orders). There are eight scholarships of £60, eight of £40, and eight of £20 per annum at this college, and three minor scholarships of £50 a year are open, by examination, to persons who have not commenced residence. The number of undergraduates is about 80. The college has the presentation to 17 livings.

CLARENCIEUX, *kla'-ren-seu*, the principal of the two provincial Kings-of-arms in England;

the second being Norroy (north-king), Clarendieu is named either after the Duke of Clarence, son of Edward III., or Thomas, son of Henry IV., created Duke of Clarence, 1411. His jurisdiction extends to all England south of the Trent, and his duty is to survey the arms of all persons bearing coat-armour within his province, to register descents and marriages, and perform other functions appertaining to the college of arms.

CLARENDON PRESS, a printing and publishing establishment connected with Oxford University. It was founded in 1672, and took its name from the fact that the printing house, erected in 1711, was built from the profits arising from the sale of Clarendon's "History of the Rebellion," of which work the University has a perpetual copyright.

CLARICHORD, or **CLAVICHORD**, *klar'-e-kord* (Lat., *clarus*, clear; *chorda*, a string), a keyed instrument, resembling in form a spinet, now almost extinct. The strings are supported by five bridges, and covered with pieces of cloth, which soften and, at the same time, so deaden the tone, as to prevent its being heard at any considerable distance. On this account, it was formerly much used by nuns, as they could practise it without disturbing the silence of the dormitory.

CLARION, or **CLARIN**, *klar'-e-on* (Fr., *clairon*, from Lat., *clarus*, clear), a kind of trumpet whose tube is narrower, and tone more acute than the common trumpet. The term is also applied to an organ stop of four feet pitch.

CLARIONET, or **CLARINET**, *klar'-e-onet'* (Fr., *clarinette*), a musical wind instrument, invented about the close of the 17th century by a German named Denner, and first introduced into Great Britain about 1779. It has thirteen holes, five of which are stopped by keys. Although chiefly used in concerted music, in which its charming effects are too well known to need encomium, its fullness and sweetness of tone as a solo instrument is extremely pleasing. It is generally considered as the most perfect of wind instruments.

CLASSIC, *klas'-sik*, a term derived from the Latin word *classici* the name given to the first, or highest class of Roman citizens. Hence it came to be applied figuratively to writers of the highest rank, and this is the sense in which it is commonly used in the present day. The highest and purest class of writers in any language are termed the classics; but, in a more limited sense, the name is given to the best writers and the best literary productions of ancient Greece and Rome.

CLASSIFICATION, *klas'-sif-e-ka'-shun* (Lat., *classis*, a class), in a general sense denotes the arrangement of a variety of objects into groups or classes, according to their resemblances or differences. It is from the power of abstraction in the human mind—the power of considering certain qualities or attributes of an object, apart from the rest, that classification is possible. No assortment or arrangement can be formed among things not perfectly alike but by losing sight of their individual or lesser peculiarities, and limiting the attention to those which they have in common.

CLAYMORE, the Gaelic name for a large sword, formerly much used by the Highlanders. It had a two edged blade, about 45 inches long,

and 2 inches broad. The handle was frequently a foot long, and the weight of the whole weapon was about 8 lbs.

CLEARNESS, *kleer'-ness*, freedom from obscurity, brightness, an effect or quality in painting, which is obtained by an artistic arrangement of tints and tones of colour. A knowledge of *chiaroscuro* is indispensable to obtain clearness without sacrificing depth.

CLEAR-STORY. (See CLERESTORY.)

CLEF, *klef* (Fr., *clef*; Lat., *clavis*, a key), a certain character placed at the commencement of the several staves of a musical composition to determine the local names of the notes, and the sounds which they represent. There are three kinds of clefs now in use, viz.—the F, or bass clef; the C, or tenor clef; and the G, or treble clef. These, by the different situations in which they are placed, furnish us with a means of expressing all the notes within the usual compass of execution, either vocal or instrumental, without a confused addition of leger lines either above or below the staff.

CLEPSYDRA, *klep-si'-dra*, a musical instrument in use among the ancient Greeks, having pipes which produced a soft sound by water forcing air into them—in fact, a kind of hydraulic organ.

CLEPSYDRA, an ancient contrivance invented by the Egyptians for measuring time by the dropping of water; called also a water clock. (See HOROLOGY.)

CLERESTORY, *kleer'-stor-e*, windows that are pierced in the upper part or the side-walls of the nave of a cathedral or church, that rise above the arches which separate the nave from the side-aisles.

CLIMACTERIC YEAR, *kli-mak'-ter-ik* (Latin, *climactericus annus*, from *climax*, a ladder or steps), denotes a critical year or period in a man's life, wherein, according to astrologers, there is some notable alteration to happen in the body, and the person will be exposed to great danger of death. The idea of climacterics is very ancient. According to some, every seventh year of a man's life is a climacteric year, certain important changes then taking place in the body. The age of 63 was regarded as the *grand climacteric*, the changes being then greater, and the danger attending the period much increased, its influence being attributed to the fact that it is the multiple of the two mystical numbers 7 and 9. Others allow the term climacteric only to the product of 7 multiplied by odd numbers; as 3, 5, 7, 9, &c. Some, again, consider every ninth year a climacteric.

CLINIC, or **CLINICAL**, *klin'-ik*, *klin'-ik-al* (Gr., *klinikos*, from *kline*, a bed), the observation and treatment of diseases at the bedside of the sick; and hence clinical lectures are such as are given at the bedside of the patient, or from notes and observations made at the bedside.

CLOACA MAXIMA, *max'-i-ma*, a large subterranean passage, answering the purpose of a sewer, in ancient Rome, connected with which were several smaller sewers called *cloacae*. The opening of it is still visible on the banks of the Tiber, into which it used to drain.

CLOG ALMANAC, or **RUNIC STAFF**, *klog*, a kind of almanac or calendar formerly in

use in England and Scandinavia, and was usually made of wood. Dr. Plot, in his *History of Staffordshire* (1686), describes one of these instruments. "It is usually," he says, "a square piece of wood, containing three months on each of the four edges. The number of days in them are expressed by notches: the first day by a notch with a patulos stroke turned from it, and every seventh by a large-sized notch. Over against many of the notches are placed, on the left hand, several marks or symbols denoting the golden number or cycle of the moon. The festivals are marked by symbols of the several saints issuing from the notches." Those which he had seen in Staffordshire had only the prime and immovable feasts upon them; whereas others of a more perfect kind, preserved in the cabinets of the curious, had likewise the Dominical letters. Of the former there were two kinds—a larger for family use, which usually hung at one end of the mantel-tree of the chimney, and a smaller for carrying in the pocket. In Denmark, the staff was sometimes six-sided, but in some cases one side was divided into six columns.

CLOISTER, *kloy's-ter* (Lat., *claustrum*, an inclosed space), in a general sense, a monastery, either inhabited by monks or nuns, who are inclosed or shut up from the world. In a more restricted sense, the term is applied to a covered passage running round the walls of certain portions of monasteries. It usually is found extending over three sides of a square or quadrangle, with the outer walls consisting of pillars and arches, and the roof frequently arched and ornamented with tracery. In the ancient monasteries the cloisters were used for several purposes. The monks held their lectures in the cloisters, and at certain hours of the day met there and conversed together while walking up and down, from which came the term "ambulatories."

CLOSE, *klose*, a term in Heraldry signifying that the wings of a bird are not spread as in the act of flying, but are close to the body.

CLOSET, *klos'-et*, a term in Heraldry signifying the half of a bar.

CLUB, *klub*, is a term of doubtful derivation. According to some, it comes from the Anglo-Saxon *cleofan*, or *cleafan*, to divide, because the expenses are divided into shares or portions, and hence to club is to contribute a share or portion; but other etymologists derive it from the German *kleben*, to adhere, so as to form one body. When a number of persons unite their funds to meet a common expence, they are said to "club" together. A club, according to Dr. Johnson, is "an assembly of good fellows meeting under certain conditions." This, though perhaps a true definition of the old English clubs, is too limited for the term as used in the present day. A club now may rather be said to be an association of persons meeting under certain conditions, or subjected to certain rules, it may be for purposes of conviviality, for uniting their separate efforts for one common object, for each contributing a share to one common fund, or for mutual benefit. There are clubs the members of which are generally of the same profession, or of similar tastes—literary or artistic; political clubs, the members of which hold similar opinions. The first club in this country of which we have any account was that famous one which met at the Mermaid tavern, of which Shakespeare, Ben Jonson, Beaumont, Fletcher, Raleigh, Selden,

and others, were members. Ben Jonson afterwards founded another club, which met at the Devil tavern, in Fleet Street. It was, however, not till the early part of last century that clubs, literary, political, and otherwise, became a great institution. There then flourished the Brothers' Club, Scriblerus Club, October Club, Hanoverian Club, the first Beefsteak Club, the Kit-Cat Club, &c., having Pope, Swift, Arbuthnot, Bolingbroke, Harley, and others among their members. The celebrated Literary Club, of which Johnson, Goldsmith, Reynolds, Burke, and others were members, was a later institution, being established in 1764, at first in Ivy Lane, Newgate Street, and afterwards meeting once a week at the Turk's Head, in Gerard Street, Soho. The Essex Street Club, which was founded by Johnson a few years before his death, met at the Essex head, in Essex Street, and was limited to twenty-four members. The old clubs have passed away; but modern associations have to some extent adopted the principle on which they were established—such as the Savage Club, the members of which are mostly connected with the literary, dramatic, artistic, and musical professions; and the Falstaff Club, a new society of a somewhat similar character. There are also several clubs, some very important, the members of which are interested in the amusement of yachting. Cricket clubs are scarcely clubs in the strict sense of the word, being merely associations for the purpose of raising funds for the means of playing the game. As in the case of rowing and bicycling clubs, the members generally wear a distinctive dress at the meetings. Within the present century, clubs of a political, literary, and professional character have been established on a splendid scale. They are permanent establishments, their buildings frequently palatial, and they furnish their members with the conveniences of a home in the highest style of elegance and luxuriance at a very moderate rate. They include dining-room and news-room, drawing-room, library, and writing-room, card-room, billiard and smoking-rooms, committee-room, and other apartments, with frequently baths and dressing-rooms. Wines and provisions are supplied to the members at cost price, the expenses of the establishment being defrayed out of the fund arising from entrance-fees and the annual subscriptions. The members are admitted by ballot, and their numbers are usually restricted. The two great political clubs in London are the Carlton (Conservative) and the Reform (Liberal). Older clubs, more or less of a political or special character, are White's, Brooke's, Booth's, and Arthur's. The Athenæum Club is essentially literary; and the military and naval services have each several clubs. The speciality of the Travellers' Club is implied by its name; and the Garrick Club is composed almost exclusively of actors and dramatic authors. (The chief clubs are noticed under separate headings.) There are political and other clubs in most of the principal towns of the kingdom. In France, at the time of the great revolution, political clubs were very influential. (See JACOBIN CLUBS.)

CLUB LAW is the law of force; from club, signifying a thick heavy stick.

COAST, *koast* (Lat., *costa*; Fr., *côte*), a sea-shore, or the country adjoining the edge of the sea. The depth of water is usually in proportion to the height of the rocks on the coast; so that a high coast indicates deep water, and a low coast shallow water.

COAT OF ARMS. (See HERALDRY.)

COAT OF MAIL. (See MAIL, COAT OF.)

COADJUTOR, *ko-ad-ju'-tor* (Lat., *con* or *cum*, with, and *adjutor*, an assistant), a fellow-helper, or one engaged in the assistance of another. In ecclesiastical matters, a coadjutor is one appointed to assist a bishop in his episcopal duties.

COCK. The figure of a cock was placed on the summits of church steeples as an emblem of watchfulness, and to serve as a vane, and hence commonly spoken of as a weathercock. In ecclesiastical art, it is one of the emblems of our Lord's passion, in allusion to the denial by Peter, and for the same reason is St. Peter's own emblem.

COCKADE, *kok-aid'* (Fr., *cocarde*, a corruption of *coquarde*, a tuft of feathers), is applied to a mark of distinction worn on the hat, usually a riband or knot of ribands, properly by officers of the army or navy, or their servants, but frequently assumed by others. It is also sometimes the badge of political party. In the War of Succession, the allied French and Spanish armies wore cockades of white and red, the former being the colour of France, the latter of Spain. The Stuart badge being a white rose, a white cockade was worn by the adherents of the exiled family, and is often mentioned in the Jacobite songs. The right to put a cockade on a servant's hat is, by custom, not by law, restricted to military and naval officers, holders of offices of dignity under the crown, privy councillors, officers of state, and judges of the superior courts.

COCKATRICE, *kok'-a-trice*. (See BASILISK.) The name is used in the English version of the Old Testament, especially in the prophetic books; but, no doubt, "venomous serpent" would be a better translation.

In Heraldry, an imaginary monster with the wings of a fowl and the tail of a serpent.

COCK-FIGHTING is said to have been a common pastime in Athens and other parts of Greece, and it seems to have been afterwards adopted from that country by the Romans. It is probable that cock-fighting was first introduced into this country by the Romans, though the bird itself was here before their arrival. In the reign of Henry II. it was a sport of the school-boys on Shrove-Tuesday, and called *Carnilevaria*; but we have no earlier account of it. The same practice prevailed in many schools in Scotland to within the last century. It became a great national sport; and though more than once prohibited, it received encouragement and countenance from several of the crowned heads. The celebrated national cockpit at Westminster is said to have been erected by Henry VIII., and James I. and Charles II. were both encouragers of the sport. It was forbidden by one of the acts of Cromwell. Cock-fighting was prohibited by 12 and 13 Vic. c. 92, and a penalty of £5 may be levied on any person keeping fighting-cocks, letting a cock-pit, &c., for every day that he shall so act. It is a favourite amusement in eastern countries.

COCK-LANE GHOST. Mysterious rappings, akin to those known in our times as spirit rappings, were, in 1762, heard in the house of a Mr. Parsons, in Cock-lane, Smithfield, and produced a great sensation. Dr. Johnson and many other eminent persons visited the house, and

nearly all were believers in the ghostly character of the rapper. They were, however, traced to the daughter of Parsons, and her parents were prosecuted for imposture and defamation (the answer to questions made by raps having accused a Mr. Kent of wife-murder) and condemned to stand on the pillory.

COCKNEY, *kok'-ne*, is a nickname, or term of contempt, applied to a Londoner, and has been long in use, occurring in verse as early as the reign of Henry II. Its origin is doubtful. According to some, it is derived from *coquina*, a kitchen, and denoted the luxuriousness for which London was celebrated even in early times; or from *Cokeigne*, or *Cocagne* (probably from the same root), the name of a Utopian country of luxury and ease. According to others, it denotes one coaxed or cockered, made a fool or nestle-cock of; according to others, one utterly ignorant of rural affairs or husbandry. The *King of the Cockneys* was an important personage in the sports and shows formerly held in the Middle Temple on Childermas-day, and had his marshal, butler, constable, and other officers, who were ordered to be entertained with due service in "honest manner and good order."

Cockney School of Literature, was a term applied in the earlier numbers of "Blackwood's Magazine," to Leigh Hunt, Hazlitt, Keats, and other young authors.

COCKPIT, *kok'-pit*, in a ship of war, is a cabin situated near the apartments of the surgeon and his assistants, where all the men wounded in action are conveyed to have their wounds dressed.

COCKSWAIN, OR COXSWAIN (generally pronounced *cox'-n*), the steersman of a boat, and in the naval service the commander of the boat's crew.

CODA, *ko'-da* (Ital.), literally, a close or termination, an Italian word applied to a certain number of bars which form the final close of a musical composition.

CODEX, *ko'-dex* (Lat.), originally denoted the trunk of a tree, and was afterwards applied to the wooden tablets covered with wax which were used by the ancients for writing. It afterwards came to be applied to a book or manuscript generally; and under the emperors, and subsequently, it designated collections of civil and ecclesiastical laws. (See CODE.) In modern Latin it denotes a manuscript volume; as, Codex Alexandrinus, Codex Vaticanus, certain MS. copies of the sacred scriptures.

Codex Rescriptus (a re-written codex), or *palimpsestus*, is an ancient parchment on which the original writing has been defaced, and a different composition copied. (See PALIMPEST.)

COEHORNS, *ko-horns'*, small mortars that were formerly used for throwing grenades, a kind of shell on a small scale. They were named after their inventor, Coehorn, a Dutch military engineer.

COFFEE-HOUSES, *kof'-fe*. In 1652, the first London coffee-house was opened in George Yard, Lombard Street, by a Greek named Pasqua; and twenty years after, the first in France was established at Marseilles. Since that time, both the culture and consumption of coffee have continually extended.

Coffee Palaces, the name given to places of resort for working men, where they could enjoy temperate refreshment, and intended to be counter-attractions to

the public-house. The first was opened at Limehouse in 1873.

COFFER, *kof'-fer* (Fr., *coffre*, a box), a casket or chest, used for keeping money, jewels, and other valuable property.

In Architecture, a deep panel in a ceiling.

COGNIZANCE, *kon'-i-sans*, in Heraldry, a crest, badge, or other distinguishing mark.

COGNOSCENTI, *kon-o-sen'-te* (Ital., *cognosco*, to know), persons professing a critical knowledge of art.

COHESION, *ko-he'-zhun* (Lat., *con*, together, *hæreo*, I stick), the force which holds together particles of a similar kind. Cohesion is the attraction exerted by homogeneous or like particles, and differs from adhesion, which is the attraction exerted by heterogeneous or unlike particles. (See ADHESION.)

Cohesion Figures, a remarkable class of very beautiful figures produced in liquids by the actions of their natural cohesive attraction for the surfaces of other liquids or solids on which they are deposited.

COHORT. (See LEGION.)

COIF, *koif* (Fr., *coiffe*, a hood), a circular black patch on the wigs worn by sergeants-at-law, a reminiscence of the tonsure, or shaved crown of the head, once adopted by ecclesiastical lawyers. (See TONSURE). When a barrister was promoted to the rank of sergeant-at-law, he was said to "assume the coif." (See SERGEANT-AT-LAW.) The term "coiffure," of French origin, is applied by milliners and hairdressers to the head-dress or mode of arranging the hair.

In Armour, coif was a defensive hood, surmounted by the helmet.

COL, *kol* (French, neck), in Geography, a depression or pass in a mountain range.

COLISEUM. (See AMPHITHEATRE.)

COLLAR, *kol'-lar* (Lat., *collum*, the neck), the part of a garment which surrounds the neck, or something worn round the neck, as a chain or ring of metal. Among the ancients, collars were sometimes worn as badges of servitude. Several orders of knighthood are distinguished by the collars, or rather neck-chains, which they wear. These collars are made of gold, enamelled, and frequently set with ciphers or other designs: the badge of the order is attached to the collar, and lies on the breast when worn.

COLLECTANEA, *kol-lek-tai'-ne-a*, is applied to a book containing a selection of passages from various authors, as the *Collectanea Græca*.

COLLEGE, *kol'-lej* (Lat., *collegium*, a collection or assemblage), primarily denoted an association or body of men united together by the same laws or customs, or in the same office or employment. Hence, among the Romans, we find the word applied not only to corporations enjoying certain rights, as the priests, augurs, &c., but to men in the same office, as consuls, questors, tribunes—to any body of merchants or mechanics, or even to an assemblage of the meanest citizens or slaves. In a more limited sense it was applied to a corporation or association of persons of which there were many at Rome, and which required confirmation by special enactment. They possessed property as a corporate body, and had a common chest. In England a college is a society of persons existing as a corporate body, either by prescription or by

grant of the king, and frequently possessing peculiar or exclusive privileges; as the colleges of physicians and surgeons. A college is also an academical institution, endowed with revenues, and subject to a private code of laws. Its particular form and constitution depend upon the terms of the foundation. The terms college and university are often confounded in modern times, and in Scotland and America the distinction has been very much lost sight of. A college is an institution for the advancement of learning; a university is for the conferring of degrees. (See UNIVERSITY, &c.) The colleges of France are very different from those of this country, being educational institutions established throughout the country, and bearing some resemblance to the German gymnasia. There are about 320 in all, and they are under the control of the University of France. The term is sometimes applied to a charitable foundation.

College of Arms. (See HERALDS' COLLEGE.)

COLON, in Punctuation, is a point or character formed thus (:), and is used to mark a pause less than that of a period, and greater than that of a semicolon. It generally implies that a conclusion is to be drawn from the facts stated, and is almost equivalent to the word, "therefore." Its proper use is generally much misunderstood by authors and printers; and even among the best writers of the present day, the colon and semicolon are frequently confounded. Two great authors, Dickens and Carlyle, were much addicted to its use, but generally in an incorrect manner. In the Prayer-book version of the Psalms, the colon in the middle of a verse has no significance as a mark of punctuation, but indicates the division for the purpose of chanting.

COLONEL, *kur'-nel* (Ital., *colonello*, leader of a column), the designation of a field officer who has the command of a regiment or battalion. The colonelcy of a regiment is generally given to some meritorious general officer for distinguished services; and the office is a sinecure, the actual command of the regiment devolving on the lieutenant-colonel, who is responsible for the drill and discipline of the corps. The term is not found in English military history prior to the reign of Queen Elizabeth, when colonels were appointed over regiments divided into ten companies, each commanded by a captain.

COLONIAL CORPS, *ko-lone'-i-al*, certain regiments raised for the protection of the colonies, and forming part of the regular army of the British empire. A few years since there were fifteen or sixteen such regiments; but now there are only two (stationed in the West Coast of Africa), West India regiment and the Royal Malta Fencible Artillery.

COLONNADE, *kol'-on-aid* (Lat., *columna*, a column), a row of columns which are generally placed in front of a large building, and support a roof projecting from the building itself; thus forming a portico. When a colonnade is continued round the whole of the exterior of a building, or the interior, if it be a quadrangle with a court in the centre, it is called a peristyle.

COLOPHON, *kol'-o-fon* (Gr.), a term applied to the conclusion on the last page of an early-printed book, where the printer's name, place, date, &c., were inserted before the introduction of title-pages. It is taken from the Greek proverb "to put a colophon to it;" meaning to complete a

thing, in allusion to the famous cavalry of Colophon, an Ionian city of Asia, whose charge usually decided a battle.

COLOSSEUM, *ko-lo-sē-um*, a very large polygonal building, erected in the Regent's Park, in 1829, for the purpose of exhibiting on the interior of the dome the panorama of London, as seen from the dome of St. Paul's, painted by Mr. Hornor, and afterwards repainted by Mr. Parris. Gardens and extensions of the building were afterwards added, and new attractions introduced, and for many years it was one of the most attractive places of resort in London. It was pulled down about 1875, and large mansions erected on the site.

COLOSSUS, *ko-lo-s'us* (Lat.), a word used by the ancient Greeks and Romans to designate a statue of gigantic size. The most remarkable work of this kind was the Colossus of Rhodes, a statue of Apollo, or the Sun, which was considered one of the seven wonders of the world, and was the work of Chares, a pupil of Lysippus. It was 105 Grecian feet in height, and stood with extended legs on the two moles which formed the entrance into the harbour. This famous statue was thrown down and shattered by an earthquake in B.C. 224, about fifty-six years after its erection. For 923 years the fragments lay about the base, when they were sold by the Saracens to a Jew of Emesa, who loaded 900 camels with the metal. One of the most remarkable works of this kind in modern times is the colossal statue of Bavaria, at Munich. It represents a Titanic Virgin, of calm majestic beauty, with a lion by her side, and is 54 feet in height, standing on a granite pedestal 30 feet high. Another statue of colossal proportions was completed in 1875, near Detmold, to commemorate Hermann, the liberator of Germany from the Romans. A figure of Liberty, of immense proportions, is in course of erection in New York harbour.

COLOURS, CONTRAST AND HARMONY OF—Contrast has been defined as the opposition of varied colours, which by such juxtaposition more vividly express each other's peculiarities. Colours, when brought together, contrast by the influence that one exerts on the hue of the other. Colours, harmonize when they form an agreeable contrast, and the one improves the appearance of the other to the utmost. Perfect harmony of colour is only attained when the three primary colours (red, blue, and yellow) are present in due relative proportions. Red is a warm colour; blue, a cool colour; yellow rather warm than cool, occupying an intermediate station between red and blue. Blue is associated with distance, yellow with near approach; with red, distance is preserved. If a person stands at the centre of a circle, and looks successively at three objects similar in form, placed on the circumference, and coloured blue, red, and yellow, the red will appear to be at just the distance of the radius of the circle, while the blue will seem to be at more, and the yellow at less than that distance. Combination of any two of the primary colours form secondary colours, which contrast the third primary. Thus the primaries red and blue, combine to form the secondary purple, which contrasts the primary yellow; red and yellow form orange, which contrasts blue; and blue and yellow form green, which contrasts red. The secondary colours, when combined in pairs, form new *tertiary* colours; each new colour

thus produced affording a contrast to the remaining secondary. Thus, purple and orange form russet, which contrasts green; purple and green form olive, which contrasts orange; and orange and green form citrine, which contrasts purple. In all these contrasts, however, perfect harmony is obtained only by the admixture of these colours in certain proportions; for instance, blue, red, and yellow harmonize when used in the proportion of 8 blue, 5 red, and 3 yellow; blue 8 is in harmony with orange 8, composed of red 5 and yellow 3; red 5 is in harmony with green 11, composed of blue 8 and yellow 3; yellow 3 is in harmony with purple 13, composed of blue 8 and red 5. The secondaries also harmonize according to proportion; thus, orange 8 is in harmony with olive 24, composed of purple 13; and green 11; green 11 is in harmony with russet 21, composed of purple 13 and orange 8; and purple 13 is in harmony with citrine 19, composed of green 11 and orange 8. To make the results of these proportions more apparent, stripes of blue and orange of equal width would be in harmony with the red and yellow that form the orange we mixed in the proportion of 5 parts of the former to 3 of the latter; and thus we arrive at the *balance* of colours necessary to produce an agreeable effect.

Mutual Influence of Colours.—Colours exert an influence each on the hue of the other. If a dark and light colour, or a dark and light shade of the same colour, be placed in juxtaposition, the presence of the dark colour, or shade, will make the light colour or shade look lighter than it really is, and *vice versa*. When a red and a green are brought together, the intensity of each will be increased by the presence of the other. The presence of yellow or orange gives a "blueness," or depth of colour, to black, with which it is associated; while blue, on the contrary, detracts from the depth, or natural richness of the black.

COLOURS, in Heraldry.—The Colours used are mostly red (*gules*), blue (*azure*), black (*sable*), green (*vert* or *sinople*), and purple (*purpure*). Yellow and white are not colours in the heraldic sense, but are described as metals or and *argent* and are represented by gold and silver. (See **HERALDRY**.)

COLOURS, MILITARY, the flags carried with an army. Each battalion of a regiment has two colours, the royal or first colour, and the regimental or second. They are about six feet square with cords and tassels of crimson and gold, and are fixed to a staff about ten feet long. The royal colour has imperial emblems, and the number of the regiment on a blue ground: the regimental colour is embroidered with the number of the regiment, its crest and motto, and the victories or campaigns in which it is has served. A subaltern officer carries each colour, and there is a guard of colour-sergeants who rank as the highest non-commissioned officers. Old and worn-out colours are preserved with veneration frequently in churches, and the presentation of new colours is a solemn ceremony, with religious observances. The use of colours in the French army has been recently abolished.

COLUMBINE, *kol'-um-bine*. In the Drama, the name of the heroine of a pantomime, impersonated by a graceful and active dancer.

COLUMN, *kol'-um* (Lat., *columna*, a column), the name given to a pillar which is used to support a superincumbent weight in various ways. It consists of three parts—the base, the capital, which gives the distinctive character to the whole column in classic architecture, and the

shaft, which forms the central part of the column between the capital and base. As the peculiar forms of the capitals of the five classic orders of architecture have been already noticed, it will merely be necessary here to treat of the shafts only. These were circular in form; but the external surface of columns of all orders except the Tuscan were fluted or ornamented with longitudinal grooves running from top to bottom. They are generally about twenty in number; and in Doric columns they are flat and shallow, and without fillets between the grooves, while columns of the remaining orders have fillets between the grooves, and the grooves themselves are much deeper, having their horizontal section in the form of a semicircle or semi-ellipse. Sometimes the fluting is filled up to one-third the height from the base with catling, either plain or ornamented. The Greeks and Romans cut their columns in such a manner as to make them swell out slightly at about one-third of the entire height from the base. This was called the *entasis* of the column. The measurement and proportion of columns were regulated by the diameter of the lower end of the shaft, which was divided into two parts called modules, each module being sub-divided into thirty minims.

In Military Art, when a body of troops are disposed in such a manner as to present a narrow front, they are said to be in column. The term "in column" is diametrically opposed to that of "in line," when troops present an extended front. When sections, subdivisions, companies, or regiments, forming a column, are at such a distance from each other that they can wheel into an unbroken line, they are said to be in open column; when within one-fourth of the length of either of the divisions named, they are in quarter-distance column; and when within a few paces of each other, in close column.

COMB, kome. In Topography, a hollow or valley among hills, from the British *Coom*. It occurs in the name of many places in the western counties, as Ilfracombe.

COMEDIE FRANÇAISE, ko-mai'-de fran'-sai-se. After the death of Molière, in 1673, his company of actors became the nucleus of the company of the French National Theatre, founded by a decree of Louis XIV. The first performance took place, August 25, 1680. This theatre has always been considered the leading school of dramatic art in France.

COMEDY, kom'-e-de (Gr., *kome*, a village, and *ode*, a song), is applied to one of the two kinds of dramatic poetry, and is so named because anciently sung at village festivals, by rustic actors. The object of comedy is to expose to censure and ridicule the follies and vices of mankind. It naturally divides itself into two kinds—comedy of character and comedy of intrigue. In the former the display of some peculiar character is chiefly aimed at; and the action is contrived with a view to this end, and is treated as subordinate to it. In the latter the plot or action of the play is made the principal object. The French comedies are chiefly comedies of character, the English mostly comedies of intrigue. In good comedy both characteristics should be properly mixed together. In comedy, the incidents and language approach nearly to those of ordinary life. The ancient comedy consisted in direct and avowed satire against particular known persons, who were brought upon the stage by name. (See **ARISTOPHANES, DRAMA.**)

COMMA, kom'-ma, in Punctuation, is a mark

thus (,) used to separate those parts of a sentence which, though very closely connected in sense and construction, require a pause between them. It represents the shortest pause in a sentence. The marks of quotation (" ") are commonly spoken of as "turned commas." (See **PUNCTUATION.**)

COMMEMORATION, kom-mem-o-ra'-shun, the great festival of the Academic year at Oxford University. Oration and prize poems are delivered, and honorary degrees are conferred in the Sheldonian Theatre. The commemoration, or *Encenia*, is of very ancient date.

COMMENTARY, kom'-men-tar-e (Lat., *comminiscor*, I call to mind), is a term used in literature in various significations. Originally it was applied to remarks or memoranda made on events and occurrences as they happened; as the Commentaries of Cæsar. At present it is usually applied to a series of critical notes and observations upon a book, either in the form of detached notes, or as a connected series of remarks, otherwise called a running commentary. There are many learned and elaborate "Commentaries" on the Bible.

COMMISSIONAIRE, kom-mis-shun-air' (Fr., *commissionaire*, one who is appointed to execute some office), the name given to the members of a corps who have been enrolled since the termination of the Crimean war, to furnish the public with trustworthy messengers who will execute any commission on receipt of a certain sum fixed as a remuneration for their services. Most of them have served in the army, and are incapacitated for other employment by injuries received. They wear a military dress of dark green, with a black leather waist-belt, cross-belt, and pouch. They are extensively employed in London and Edinburgh in commercial establishments, and the instances in which they have failed to justify the confidence placed in them have been extremely rare. On the Continent, the name given to attendants and messengers at hotels, some of whom speak English fluently, and act as guides to public places.

COMMONER, kom'-mo-ner, is a student of the second rank at the universities of Oxford and Cambridge.

COMMON-PLACE BOOK, is a book in which are recorded and arranged under general heads, and carefully indexed, such things as may occur in the course of reading or study, in such a way as that they may be easily found again. The advantage of such a book to the student or man of letters is very great. It not only trains him to read with accuracy and attention, but leads him insensibly to think for himself, and to watch over his own thoughts.

COMMON TIME, in music, that measure which contains two minims or four crotchets in a bar.

COMPARISON, kom-par'-e-son (Fr., *comparaïson*), is the act of carrying the mind from one object to another, in order to discover some relationship subsisting between them. The result of comparison is a judgment.

In Rhetoric, comparison is a figure of speech frequently employed for the ornament of composition; and, when properly introduced, it adds much to the beauty of style. It consists in viewing two things with regard to a third, which is common to them both. Comparisons are of various kinds; but they may be

all arranged into one or other of two classes, according as they are addressed to the understanding, with a view to instruct; or to the heart, with a view to please.

In Grammar, comparison is the means by which is denoted the degree in which the quality expressed by an adjective is possessed by the substantive with which it is coupled. There are three degrees of comparison, —the positive, comparative, and superlative. The positive expresses the quality simply, without any comparison; as good, wise, prudent; and, hence, some do not consider this as a degree of comparison. The comparative expresses that the quality is possessed in a higher degree by that object than another; as, John is taller than James. The superlative expresses the possession of the quality in the highest degree, or in a higher degree than it is possessed by a number of others; as, Solomon was the wisest man. In English, there are two ways of expressing these degrees; either by an inflection or change on the word itself, as wise, wiser, wisest; or by the addition of a word, as prudent, more prudent, most prudent. In many cases, either form may be adopted; but where the former would produce a harsh word, or one difficult to be pronounced, the latter mode is adopted. A common error is to substitute the superlative degree for the comparative, when only two things are compared, as "he is the 'tallest' of the two, instead of 'taller.'" Adverbs are compared in the same way as adjectives.

COMPASS, *kum'-pas*, in Music, the extent of notes or sounds comprehended by any voice or instrument.

COMPLEMENT, *kom'-ple-ment*, in Music, the quantity required to be added to any interval to complete the octave.

COMPLUTENSIS POLYGLOT, *kom-plu-tensh'-yan*, the name given to an edition of the Holy Scriptures published in 1522 at Alcalá de Henares (the ancient *Complutum*) at the expense of Cardinal Ximenes. (See BIBLE.)

COMPONE, or GOBONY, *kom-po'-ne*, *go-bo'-ne*, in Heraldry, a pale, band, or other ordinary, made up of two rows of small squares, consisting of alternate metals and colours.

COMPOSER, *kom-po'-zer*, literally, a practical musical author, or, in other words, one who invents or composes new music according to the established rules of science, and who studies harmony and melody as connected with effect in composition, independently of the law of acoustics, or the philosophy of sound.

COMPOSITE ORDER. (See ARCHITECTURE.)

COMPOSITION, *kom-po-zish'-zun* (Lat., *compositio*), in a general sense, is the act of forming a whole or integral of various dissimilar parts, and is also applied to the body or compound thus formed. In Literature, it is the art of forming and combining ideas, and clothing them with language suitable to the nature of the subject. In Logic, it is a method of reasoning in which we proceed by gathering together a number of ideas, and combine them into one system, otherwise called synthesis. In Grammar, it is the joining of two words together, or prefixing a particle to a word, to augment, diminish, or change its signification.

CONCERT, *kon-sert* (Ital., *concertare*), a musical entertainment, in which a number of musicians, vocal and instrumental, unite in the exercise of their various talents.

CONCERTINA, *kon-ser-te'-na*, a kind of musical wind instrument, patented by Professor Wheatstone in 1829. This instrument has a compass of three octaves and a half, and possesses

not only a chromatic, but an enharmonic scale, it having two separate tones. From this fact, as well as from the flexibility of the bellows, the chords are better in tune than in most other instruments of a fixed sound. Its capabilities are such that the most complex harmonies, as well as the most difficult violin or flute music, can be played upon it.

CONCERTO, *kon-sert'-o*, a musical composition for a solo instrument, usually a violin or piano, with orchestral accompaniments. It consists generally of three movements.

CONCORD, *kon'-kord* (Lat., *concordia*; Fr., *concorde*), in Music, is the union of one or more musical sounds, which, by harmonizing and agreeing together, produce an agreeable effect upon the ear. When any two single sounds bear so much relation to one another that, on being sounded together, they make a compound sound, that relation is called *concord*. Concords are of two kinds—perfect and imperfect. Perfect concords consist of the fifth and eighth, and imperfect concords of the third and sixth. These last have another distinction—that of the greater and lesser third and sixth.

CONCORDANCE, *kon-kor'-dans* (Lat.), is a dictionary or index of all the important words in the Bible alphabetically arranged, for the purpose of finding passages, and of comparing the various significations of words. The importance of a work of this kind was early perceived; and the first was that of Hugo de St. Caro, about the middle of the 13th century. By far the most complete and valuable concordance to the English Bible is that by Alexander Cruden, the first edition of which was published in 1704, 1737, and which has since passed through numerous editions. Perhaps the best concordance to the Hebrew text is that of J. Fürst, entitled "Concordantiæ Librorum Sacrorum Veteris Testamenti Hebraicæ et Chaldaicæ" (Leipsic, 1837-40). The most recent concordance to the Greek New Testament is that of C. H. Bruder, "Omnium Vocabulorum Novi Testamenti Græci," 4to (Leipsic, 1843). The term has also come to be applied to works of a similar nature of other books; as the "Concordance to Shakespeare," by Mrs. Cowden Clarke. Concordances to Milton, Pope, and Tennyson have also been published.

CONDOTTIERI, *kon-doi-te-air'-e*, an Italian word, signifying captains, chiefs, or leaders, but generally employed to designate soldiers of fortune, who raised troops of cavalry and infantry at their own expense, and engaged their services as mercenaries with governments or princes, thinking far more of plunder than of military glory. They were numerous in the 14th and 15th centuries in the Italian wars. Although many condottieri obtained great honour and wealth, only one attained high rank—Francesco Sforza, originally a peasant, who, in 1451, constituted himself duke of Milan, and transmitted the sovereignty to his descendants.

CONDUCTOR, *kon-duk'-or* (Sp., *conducir*, to lead), one who superintends everything connected with a concert, and who also directs the performance of a band or orchestra. His duties are extremely onerous, as they do not consist only (as some people imagine) in the use of his *bâton*, or in his performance, either as a soloist or accompanist. A conductor must be an excellent theoretical musician, and endowed with a

sensitive temperament, and an exceedingly correct musical ear.

CONFRONTE, *kon-frunt-ai'*, in Heraldry, facing or fronting one another.

CONGRUITY, *kon-gru'-e-te* (Lat., *congruo*, I come together, correspond, or agree), denotes a suitableness or relation of agreement between different things. Congruity, wherever it is perceived, is agreeable, and is so nearly allied to beauty as to be commonly regarded as a species of it. Incongruity is an unsuitableness between different things, and is disagreeable.

In Arithmetic, two numbers are congruous to a third when their difference is exactly divisible by it. Thus 27 and 12 are congruous to 5, as the difference between them is 15, which can be divided by 5.

CONJUGATION, *kon-ju-gai'-shun*, in Grammar, is a regular distribution of the several inflections of verbs into their different voices, moods, tenses, numbers, and persons. (See GRAMMAR and VERB.)

CONJUNCTION, *kon-junk'-shun*, in Grammar, a conjunction is an indeclinable word or particle which serves to unite words, sentences, or clauses of a sentence, and to show their relationship or dependence upon one another. There are two principal kinds of conjunctions—the conjunctive and the disjunctive; as, Peter and John, James or Robert. Grammarians make a farther distinction into co-ordinating and subordinating conjunctions—the first uniting two simple sentences or assertions, the other uniting the statement of a fact with some other fact explaining or modifying it.

CONJURATION, *kon-ju-rai'-shun* (Lat., *con*, and *juro*, I swear), is the act of using certain words or ceremonies to obtain the aid of a superior being, more particularly applied to the magical words, characters, or ceremonies by means of which evil spirits, tempests, &c., are said to be raised or driven away. The word is sometimes used by old writers to express a conspiracy or plot to do any public harm. The verb, to conjure, is also employed by some as equivalent to adjure, "to charge in God's name, specially or earnestly." Thus Shakespeare makes Mercutio say to Romeo, "I conjure thee by Rosaline's bright eyes." In common language, the name conjuror is often incorrectly applied to performers of tricks depending on sleight of hand, optical deceptions, or mechanical contrivances.

CONNOISSEUR, *kon-noy-sur'* (Fr., *connoisseur*, from Lat., *cognoscere*, to know), a person who is skilled in any subject, and particularly one who is well fitted to judge of the merits of paintings and sculpture, from possessing a critical knowledge of works of art. In Italian, such a person is termed *cognoscente*.

CONQUEST, THE, *kon-kwest*, a term specially applied in English history to the invasion of England by William of Normandy in 1066.

CONSECUTIVE, *kon-seck'-u-tiv*, in Music, a term applied to octaves and fifths, which are opposed to the rules of harmony.

CONSERVATOIRE, *kon-serv'-a-twor* (Ital., *conservatorio*), a name given in France, Belgium, and Italy to schools instituted for the purpose of advancing the study of music, and in some instances, other arts. As early as the 5th or 6th centuries, schools of this character, chiefly

for the education of orphans, foundlings and children of poor parents were attached to convents and hospitals or were supported by private benevolence. In 1818, several schools of this character were united in the Royal College of Music; a similar large institution having been established at Milan ten years previously. In 1784, a school for educating singers was founded in Paris, and that was the bases of the Conservatoire de Musique, organized in 1795, and still flourishing. There are also conservatoires of high reputation at Warsaw, Prague, Brussels, Vienna, Leipsic, Cologne, Berlin, Munich, and other large German towns.

CONSERVATORY, *kon-ser'-va-tor-e* (Lat., *conservare*, to preserve), a glass house for the reception of tender plants that require protection from the wind, frost, and rain. A distinction is sometimes made between a conservatory and a greenhouse, plants in the former growing in borders of earth, and in the latter in pots; but these peculiarities are not uncommonly combined. A more definite distinction is that a greenhouse is commonly a detached building in the garden, and the conservatory attached to, and immediately accessible from, the reception room of the house. A conservatory requires a little artificial heat from a stove placed within it in winter only; and this constitutes the chief point of difference between the conservatory and hothouse, which is heated by pipes, and an apparatus for the transmission of hot air, throughout the year. Conservatories are often rendered an ornamental feature in a building when attached to it and connected with one of the principal apartments, or forming the entrance.

CONSONANT, *kon-son-ant* (Lat., *con*, and *sono*, I sound), is a letter which cannot be sounded by itself without the aid of a vowel placed either before or after it.

CONSTELLATION, *kon-stel-lai'-shun* (Lat., *con*, together; *stella*, a star), the name given to large clusters of stars which occupy a considerable space in the field of the heavens, and are distinguished by names and grouped within fanciful outlines of men, animals, and things, principally derived from persons and incidents mentioned in the mythology of the Greeks and Romans. Eudoxus and Ptolemy among the ancients, and Bayer, Helvetius, and Lacaille, in more modern times, are the principal astronomers who have grouped the stars into constellations. Tycho Brahe, Lemonnier, Bezobut, and Halley, have added five more, which are recognised. Many more have been named by these and other astronomers, which are not admitted into the list of acknowledged constellations. Bayer commenced the notation of the stars in the various constellations by the Greek alphabet, marking the brightest star by the first letter, and so on; and when there were more stars than Greek letters, he denoted the rest by small italics. The stars were numbered in each constellation by Flamsteed, in the order of their right ascension, and this is the plan usually adopted in the catalogues of Bradley, Lacaille, and others. The principal constellations are noticed under their respective titles.

CONSTITUTION, *kon-sti-tu'-shun*, in Medicine, the term is used to denote the general condition of the body, as evinced by the peculiarities in the performance of its functions; as the peculiar predisposition to certain diseases,

the liability of particular organs to disease, varieties in digestion, in muscular power and motion, in sleep, in the appetites, &c.

CONTINENT, *kon'-tin-ent* (Lat., *con-*, *tenens*, holding), a large tract or division of land not separated by the sea from other lands, or a connected tract of land of great extent, whether an island or not. The surface of the earth is divided into five continents, which are generally recognised; namely, Europe, Asia, Africa, America, and Australia. In the language of every day life, in this country, "the Continent," means Europe.

CONTORNIATE, *kon-tor'-ne-ate* (Ital., *contorno*), a term applied to certain antique medals which have a deep cut round the edge.

CONTOUR, *kon-toor'* (Fr., *contour*, from Lat., *conterquero*, to bend or twist), a name which is sometimes given to the outline by which any figure or form is defined or expressed. It is also applied to the coast-line of a country and the undulations of its surface, referring chiefly in the latter case to the outline of hill and dale obtained by making a section of it in any direction. We often speak of the contour of a figure and associate it with an outline consisting of beautifully rounded curves rather than with one which is full of abrupt turns and angular projections.

CONTRA BASS, *kon'-tra*, the largest musical stringed instrument, commonly known as the double bass. The English instrument has only three strings; but German makers add a fourth. In an organ the name is given to a slope of 15 feet pitch.

CONTRACTION, *kon-trak'-shun*, in Grammar, is the shortening of a word by the omission of a letter or syllable. The Greek language abounds with contractions, which have been adopted chiefly to avoid a harshness in the pronunciation arising from the concurrence of two vowels in two successive syllables or words. Hence, two or more simple vowels coming together are usually contracted into a diphthong. This is said to be *proper* when the vowels are contracted without change into a diphthong; *improper*, when, in the contraction, a vowel or diphthong of a different sound is substituted. *Elision* takes place when two vowels at the end of one and at the beginning of another word come together, and the final vowel of the first word is rejected, its place being marked by an apostrophe placed over the consonant which is left. This takes place chiefly with the poets. *Crasis* is that kind of contraction in which two words coalesce into one, and are accented as one, without any elision. In *synizesis*, two vowels are contracted into one sound—not in writing, but in pronunciation. In the Middle Ages, before the introduction of printing, numerous contractions were resorted to for the purpose of abbreviating the labour of transcription; and, from that practice, the labour of deciphering antique documents is frequently very considerable. In many of the arts and sciences contractions are still common. (See ABBREVIATIONS.)

CONTRALTO, *kon-tral'-to* (Ital.), is a term employed to designate the deepest kind of female voice, or that part in the score whose range of tones lies between that of the tenor and that of the soprano or treble, also called the *alto* or *counter-tenor*.

CONUNDRUM, *kon-un'-dram*, a sort of riddle, in which some odd resemblance (generally depending on a pun, or the variation in the meaning of words almost similar in sound) is proposed for discovery between things perfectly unlike; as, for instance, Why is a whisper like a forged bank-note?—Because it is uttered but not allowed (aloud).

CONVENTIONAL, in Art, expresses accordance with authorities and precedents as to form and colour, instead of direct copying from nature. Conventional forms are not natural forms, but something which has been substituted for them—diagrams, as it were, founded on the principles of construction, without noticing variations of detail in individual specimens; and conventional expressions and attitudes are those which have been adopted as representing certain emotions.

CONVERSATION, *kon-ver-sai'-shun* (Lat., *conversatio*; from *con*, and *verto*, I turn), denotes familiar discourse or easy talk between two or more persons, and is opposed to a formal conference. The pleasure and advantages to be derived from conversation are very manifest. There is much in it to lead the superficial observer to view it as a natural gift; and we find individuals, and even nations, that have peculiar talents for it; but still it is an art, and may be learned like every other art, and from its value and importance it is entitled to much more attention than is usually bestowed upon it, at least in this country. Let a man have read, thought, studied as much as he may, rarely, will he reach his possible advantage as a *ready* man, unless he has exercised his powers much in conversation. De Quincey goes farther, and not only regards conversation as giving greater facilities to a person in expounding or diffusing the truth, but as giving a new insight into the truth itself. Rousseau justly remarks that the tone of good conversation is neither dull nor frivolous. It is fluent and natural; sensible, without being pedantic; cheerful, without being boisterous; elegant, without being affected; polite, without being insipid; and jocose, without being equivocal. The object of conversation is to afford entertainment or agreeable information; and one of its first rules is to allow everybody to contribute his share, while everyone at the same time ought to exert himself for the gratification of the company. Egotism, or any display of self-conceit, is the very bane of conversation, and carefully to be avoided, as is also tediousness in narration.

Conversation Pieces, in Art, are pictures representing a number of persons grouped in a natural manner and apparently engaged in conversation. These pictures are frequently the medium of introducing portraits of known personages.

"CONVERSATIONS LEXIKON." (See ENCYCLOPEDIAS.)

CONVEX. (See CONCAVE.)

COPE, *koop* (Sax., *cōppe*), an ecclesiastical vestment worn by the clergy of the Roman Catholic church during the celebration of mass, at processions, and other solemnities. It reaches from the neck nearly to the feet, and is open in front, except at the top, where it is united by a band or clasp, and is generally highly ornamented with embroidery. The rubrics of Edward VI. prescribe a cope or vestment for the priest ad-

ministering the holy communion, and for the bishops when executing any public ministration in the church, for which a vestment may be substituted either by priest or bishop. Embroidered copes are in great favour with clergymen of the High Church and Ritualists.

COPSE, OR COPPICE, *kops, kop'-pis*, a plantation of trees, or a natural wood, in which the trees are cut down so as to prevent them attaining their full height, and so send up shoots from their roots.

COPTIC CALENDAR.—The calendar in use among the Copts of Egypt. It descends from the ancient Egyptians, but with a difference, their vague year, which was neither solar nor lunar, and consisted of twelve equal months of thirty days each, with five final complementary days or *epagomones*. This was also the year of the era of Nabonassar, the astronomical prince of Babylon, which commenced B.C. 747. But a short time after Antony and Cleopatra were beaten at Actium the Egyptians adopted from their Roman conquerors the custom of approximating to accuracy by adding a day to every fourth year, which thus has six complementary days. This was first done in the eighth year of the Actian era, reckoned from the date of the famous sea-fight. Later on, the Copts, although they preserved this same year as a unit to count by, abandoned the Actian era for that of Diocletian (also called the era of martyrs because of the persecutions in his reign), which commenced A.D. 284, when he was proclaimed Emperor at Chalcedon. This they still continue to use. The Coptic New Year's Day is equivalent to our 10th of September.

COPTIC LANGUAGE, *kop'-tik*, is the language of the ancient Copts, or that which was in use in Egypt after the introduction of Christianity. The written character is Greek, with an addition of eight other letters to express sounds peculiar to the Coptic, and many Greek words have been introduced with Christianity. There are two principal dialects of the Coptic—the Sahidic, or Upper Egyptian, and the Memphetic, or Lower Egyptian. The former contains a great number of Greek expressions, but the latter appears to be the more polished. There is a third dialect—the Bashmuric, which was spoken in the Delta, but of which only a few fragments now exist. It is interesting from its supposed resemblance in some points to the language of the hieroglyphics. The Coptic literature is by no means rich or valuable, consisting for the most part of translations of the sacred Scriptures, lives of saints, homilies, and some Gnostic works. The translations of the Bible were probably made about the end of the 3rd or beginning of the 4th century, and follow, as far as the Old Testament is concerned, the Septuagint version. The Coptic language has not been spoken in Lower Egypt since the 10th century, but it lingered for some centuries later in some parts of Upper Egypt. It is still, however, employed by the Copts in the religious worship; but the lessons, after being read in Coptic, which scarcely one of the priests who read it can understand, are followed by a version in Arabic.

COPYRIGHT, *kop'-e-right*, is that right which the law allows an author or his assigns of printing and reprinting his own *original* work. In the reign of Queen Anne this right became the subject of positive regulation, and subsequent

enactments were applied to it. It is now mainly regulated by the 5 and 6 Vic. c. 45, which provides that the copyright of every book (under which word is included, in the construction of the Act, every volume, part, or division of a volume, pamphlet, sheet of letterpress, sheet of music, map, chart, or plan separately published) which shall be published in the lifetime of its author, shall endure for his natural life, and for seven years longer; or, if the seven years shall expire before the end of forty-two years from the first publication, shall endure for such period of forty-two years; and that, when the work is posthumous, the copyright shall endure for forty-two years from the first publication, and shall belong to the proprietor of the author's manuscript. If the work be unlawfully printed within the British dominions, an action for damages must be brought within twelve calendar months; and, if unlawfully reprinted in any place out of the British dominions and imported into the United Kingdom, it may be seized as forfeited by any officer of the Customs or Excise, and the offenders are liable to penalties. Registration at Stationers' Hall is no longer obligatory; but it is requisite as an evidence of copyright in case of a dispute. The Act empowers the Judicial Committee of the Privy Council to license, under certain conditions, the publication of books of importance which the proprietor refuses to publish after the death of the author. Besides the remedy by action, the Chancery division of the High Court of Justice will interfere by injunction to restrain an infringement of the right. Protection does not extend to the work if it be immoral, blasphemous, or seditious in its tendency, or if it be defamatory of private character, or if (with a view to defraud the public) it is published as the work of one who is not in truth the author. Extracts from a book cannot strictly be made without permission from the owner of a copyright; but practically this permission is assumed, and such quotations are ordinarily valuable as introducing the book to the notice of the public. Unauthorized abridgments, in which the language of the author is retained, are piracies, and the sale may be stopped; but there is no copyright in subject, information, or ideas, if they are conveyed in different language. Articles contributed to periodical works, as reviews and magazines, or to encyclopædias, are copyright. Newspaper matter is also legally copyright; but the claim is never enforced, so far as articles of general news are concerned, the borrowing of such matter being a mutual convenience. The unauthorized adoption of an existing title of a newspaper or a magazine is an infringement of copyright that is always promptly stopped. Sermons delivered by clergymen of the Church of England in endowed places of worship may be taken down and published without the consent of the preacher, because in the 5th section of the Act protection is not extended to lectures delivered in any public foundation, or delivered by any individual in virtue of, or according to, any gift, endowment, or foundation, and endowed places of worship are considered to be public property. Sermons delivered in the chapels of Non-conformists, or addresses or lectures in other places than endowed churches, are the property of the person delivering them. Letters and every kind of epistolary correspondence are the property of the writer, and must not be published or sold by the receiver. Dramatic pieces and musical compositions, with right of representation

and performance, are subject to the same copyright as books. A work of fiction may be dramatised without the consent of the author, who has no power to prohibit the performance. The proprietor of the copyright of a song, or a musical composition, is entitled to forbid its being sung or played without his permission; and verses must not be taken and set to music for sale without permission.

Engravings and Pictures.—The term of copyright in these productions (secured by the 17 Geo. III. and other statutes) is twenty-eight years from the date of publication, which, with the name of the publisher, must appear on engravings. An infringement of the copyright (and that extends to the sale of reproductions by photography) involves the forfeiture of every copy, with a fine of five shillings for each. There is no copyright in subject, and pictures suggested by incidents in copyright books may be sold. The copyright of a portrait remains with the artist, although he may have been paid for painting it. Copyright of photographs is also secured.

Designs.—Designs for ornamenting articles of manufacture are protected by several Acts, passed in the present reign. The copyright is for three years from the time when the design was registered. (*See DESIGNS.*)

In the Colonies.—The copyright of books, &c., printed in the United Kingdom, is extended to all British colonies. By an Act passed by the legislature of the Dominion of Canada, and confirmed by the Imperial Parliament in 1875, if there is copyright in the United Kingdom in a book, the author becomes entitled to copyright also in Canada, and none but the owner can import into the United Kingdom any copies reprinted in Canada. Canadian authors have a copyright for twenty-eight years, and if he or his wife or child is living at the end of that term, then for fourteen years longer. The English copyright law extends to India; but actions for piracy are barred after twelve months.

In Foreign Countries.—In France the copyright exists for the lifetime of the author or his widow, and after the death of the survivor for twenty years in his children or ten years for his heirs or assignees. The law in Holland and Belgium is similar, except that, either in the case of children or other heirs or assignees, the term of twenty years is allowed. In Germany, copyright extends to the lifetime of the author, and thirty years after his death. In Denmark, copyright exists for thirty years, but lapses if the work on which it exists be out of print during five years. In Sweden, the term for copyright is twenty years; but should the author or his representative neglect to continue the publication, the copyright falls to the State. In Spain, copyright is for the author's life, and for fifty years after his death. In Russia, it is for the author's life, and after his death to his heirs and assignees for twenty-five years, and for a further term of ten years, if they publish an edition within five years before the expiration of the first term. In Greece, copyright exists for fifteen years, from the date of publication. In the United States, the copyright exists for twenty-eight years, from the time of recording the title, and fourteen years more if the author, or his widow or child be living, provided that the title be recorded anew within six months before the expiration of the twenty-eight years.

International Copyright.—Great Britain has made arrangements with Austria, Belgium, France, Prussia, Saxony, Hamburg, and Italy, by which their is mutual protection for copyrights, translations included. Great efforts have been made, but unsuccessfully, to procure a similar arrangement with the United States.

CORACLE, kor'-a-kl (Celtic, *curach*), a light boat or canoe, constructed with a framework of wood covered with skins. Coracles were used by the ancient Britons from the most remote times. Julius Cæsar built some after the British model: the keel and gunwhales were of light wood, and the sides of wicker, covered with hides. The general size of a coracle was about four feet long

and three wide, its shape being oval. It held only one person, who propelled it with a paddle, and on land it was carried with ease upon the shoulders from place to place. The coracle is still in use in some parts of Ireland, especially on the coasts of Donegal and Clare. It is also used on the Severn in England.

CORANACH, ko'-ra-nak (probably Gaelic *cornh-ranaich*, a crying together), a funeral dirge, a cry of mourning, in use among the Irish and Scottish Celts. It consisted of a long and mournful chant, in which the good deeds of the deceased, the mode of his death, and his pedigree were narrated, and frequently had the effect, in times when violent deaths were not unfrequent, of exciting feelings of revenge.

CORBEL, kor'-bel (Fr., *corbeille*, a basket), the name given to blocks of stone projecting from the surface of a wall to support the machicolations of towers (*see MACHICULATION*), or the ends of the beams of the floors in old castles. The beams which form what is called an open roof in churches and large halls are often supported on carved corbels. The stones which support the bartizans (*see BARTIZAN*) at the angles of towers, jutting out in layers one above another, are also called corbel-stones, and stones which project in this manner are spoken of as "corbeling out." In Gothic architecture, the corbel frequently takes the form of a head or a recumbent animal. In the later periods, the corbel assumes the shape of foliage resembling the ornamentation of the capitals.

CORBIE-STEPS, OR CROW STEPS, kor'-be (French, *corbeau*, a crow), the succession of steps with which, in Scotland, and some of the old German towns, the gables of old houses are commonly ornamented. There are many examples in Edinburgh.

CORDON, kor'-don, a line of sentries enclosing or guarding a particular space of ground, to prevent anybody not belonging to the army passing.

CORINTHIAN ORDER. (*See ARCHITECTURE.*)

CORN, koarn (Ang.-Sax., a round hard seed), a term generally applied to all seeds used in making bread, especially the seeds of the cerealia. The principal seeds of this kind in temperate climates are wheat, rye, oats, and barley; while those of warm climates are maize, rice, and millet. In a more restricted sense the word corn is applied to that particular grain of a country which is most largely used in making bread. In England corn refers to wheat, in Scotland to oats, and in America to maize.

CORNELL UNIVERSITY, kor'-nell, founded at Ithaca, in the State of New York, in 1868, by Ezra Cornell, for the study of the applied sciences, especially engineering and agriculture.

CORNET, kor'-net (Ital., *cornetta*, a small flag), formerly the designation of commissioned cavalry officers of the lowest grade. The cornet was so called from carrying the guidon, or small square regimental flag. The rank was abolished in 1871, and lieutenants are now the lowest rank of commissioned officers.

CORNET-A-PISTON, kor'-net-a-pis'-ton. (*See CORNOPEAN.*)

CORNICE, *kor'-nis* (Fr., *corniche*), the name of the upper part of the entablature (see ARCHITECTURE) which comes immediately above the frieze. It is divided into two principal parts, the upper of which projects considerably beyond the lower, being supported by modillions or mutules. The fillet, which composes the lower part, with an echinus moulding and smaller fillet above it, from which the modillions project, and an ogee, or bed-mould below it, which separates it from the frieze, is generally enriched with dentils, especially in the Corinthian and Composite orders. The upper part is subdivided into two portions—the corona, which rests on the modillions, and the cymatium, which surmounts the corona. The term cornice is also applied to the ornamental moulding projecting from the upper part of the walls of a room immediately under the ceiling.

CORNUCOPIA, *kor-nu-ko'-pe-a* (Lat., *cornu*, a horn, *copia*, plenty), in Sculpture, an emblem of abundance, placed in the hands of figures, represented as growing from it corn, fruits, &c. It is used in heraldry, and frequently in architecture.

CORONA, *ko-ro'-na* (Lat., a crown), the lower member of a classical cornice; and the term is also applied to the apse or semi-circular termination of the choir of a church. (See ARSE.)

CORONET, *kor'-o-net* (Lat., *corona*, a crown), an inferior kind of crown worn by princes and noblemen as distinctive tokens of their several degrees. (See CROWN.)

CORPORAL, *kor'-por-al* (Fr., *caporal*; Ital., *capo*, head), the designation of a non-commissioned officer who ranks next to a sergeant. It is the duty of the corporal to relieve and place sentries. When the regiment is on parade, he falls into the ranks with the privates. The corporal receives a somewhat higher pay than a private, and is distinguished by wearing two chevrons on his arm. (See CHEVRONS.) The lance-corporal is an assistant, who receives only private's pay, but wears one chevron on the arm. In the navy, the ship's corporal is a petty officer acting under the master-at-arms, and entrusted with certain duties in connection with the discipline of the crew.

CORPUS CHRISTI COLLEGE, CAMBRIDGE, was founded in 1352 by two societies, or guilds, in Cambridge, called the guild of Corpus Christi and the guild of the Virgin Mary; and at first the college bore both names. Afterwards it acquired the name of Bene't College (by which it is still often distinguished), from the adjoining church of St. Benedict. It has twelve fellowships—eight of whom are required to take holy orders within three years after their election. A fellowship is vacated by the possession of an income exceeding twice its value, by holding any ecclesiastical preferment of the annual value of a fellowship, by the possession of any college living beyond the precincts of the University, or by marriage, unless the fellow hold a University professorship not exceeding £500 per annum. There are thirty-one scholarships and six exhibitions connected with this college.

CORPUS CHRISTI COLLEGE, OXFORD, was founded in 1526 by Richard Fox, bishop of Winchester, for a president, twenty fellows, and twenty scholars, the fellows to be elected from the scholars, and the scholars from natives of certain

specified dioceses and counties. By the present statutes, which have been recently amended, it is provided that both fellows and scholars shall be elected without any restriction as to place of birth. There are fifteen fellowships, and two Professor fellowships. Six of the fellows must be in holy orders; and all fellowships are vacated by marriage. There are twenty-four scholarships tenable for five years from matriculation, and are of the annual value of £80, together with rooms rent free. There are also numerous exhibitions.

CORPS, *kor*, the name given to any body of troops, without reference to the number of men of which it is composed.

CORPUS DELICTI, *de-lik'-te*, in Scotch criminal law, a term used to signify the body or substance of the charge. The fact of the specified crime having been committed, the *corpus delicti* must be proved before any person can be tried for the offence.

CORRIDOR, *kor'-re-dor* (Ital., *coridore*), a passage or gallery in a mansion, or any large building, which affords access to a range of chambers that are independent, and have no other means of communication with each other. A corridor may be closed, or open to the air on one side.

CORSAIR, *kor-saire'* (Ital., *corso*, a race), a term applied generally to sea-robbers or pirates, but originally used to designate those pirates in the south of Europe who sailed from Algiers, Tunis, Tripoli, and the ports of Morocco, and attacked merchant-vessels.

CORSET, *kor'-set* (Fr.), a tight-fitting under-dress for the body, worn by females; it is stiffened by whalebone or other means, and tightened by a lace. Stays are now generally termed corsets, and they are moulded to the shape of the body by the action of heat.

CORSLET, *kor'-let* (Fr.), a light body armour, worn by the pikemen about the middle of the 17th century, and generally made of leather. Sometimes the term is employed to designate the entire suit under the title of a corslet, complete or furnished, which included the headpiece or gorget, as well as the tassels which covered the thighs.

CORVETTE, *kor'-vet'* (Fr.), a sloop of war an advice-boat, having only one tier of guns, and flush-decked.

CORYMBUS, *ko-rim'-bus*, a particular and very graceful arrangement of the hair by the women of ancient Greece, adopted in many statues of Venus. Ornamental work was sometimes worn over the hair.

CORYPHÆUS. (See CHORUS.)

COSMETIC, *kos-met'-ik* (Gr., *kosmeo*, I adorn), is a preparation used to whiten or soften the skin, or otherwise to beautify and improve it. Some of the cosmetics now in favour are comparatively harmless, except so far as they obstruct the pores of the skin; but some are metallic, and very dangerous. (See BISMUTH.) With the ancient Romans, the term *cosmetæ* was applied to those slaves who were employed to dress and adorn their mistresses.

COSMOPOLITAN, *kos-mo-pol'-i-tan* (Gr., *polites*, citizen), a citizen of the world; a person who makes himself at home wherever he goes,

who has no fixed residence, and nowhere feels himself to be a stranger and an alien.

COSMORAMA, *kos-mo-ra'-ma*, an exhibition in which various scenes illustrative of remarkable events and different parts of the world are shown. The effect of the pictures is heightened by throwing artificial light upon them; and they are viewed through lenses of great magnifying power, which makes them appear to be wonderfully natural and life-like. (See **DIORAMA**.)

COSTUME, *kos'-tume* (Fr.), the term ordinarily applied to the garments, robes, &c., of a people. The several peculiarities in the dresses of doctors, masters of arts, bachelors, and undergraduates, constitute what is generally called the costume of the university, or academical costume. The old painters were generally very careless respecting the historical correctness of costume; and on the stage, it was only about the end of the last century that attention was directed to the subject. The theatrical costumier of the present day is an archaeologist and artist.

COTERIE, *ko-ter'-e* (Fr.), a friendly or select party, a club or association limited to a small number of individuals. The word is of French origin, and is supposed to have been derived from the Latin *quot*, how many? In the 13th or 14th century, when merchants joined together in an enterprise, they formed a coterie, and each subscribed his quota. It soon lost this signification, and now only refers to exclusive societies.

COTHURNUS, *ko-thur'-nus*. (See **BUSKIN**.)

COTICE, *ko'-tise*, or cost, in Heraldry, the fourth part of bend (see **BEND**) and usually borne in couples, with a head between them. Anything that is accompanied by another heraldic object is said to be cotised; and in French heraldry, an escutcheon is *cotisé* when divided by bends into many equal parts.

COTILLON, *ko-til'-yun* (French), an under petticoat, a brisk French dance executed by eight persons. It was very popular in France at the conclusion of the last century but was superseded by the quadrille, which is itself a modified form of the cotillon.

COTTAGE, *kot'-taj* (Ang.-Sax.), a small habitation, detached from other buildings, and generally one storey high. The name was originally applied only to dwellings of a very humble kind, but it is now used to designate a great variety of buildings, from the ornamental cottages of the French to the Swiss chalets.

COTTONIAN LIBRARY, a valuable collection of manuscripts, including many State papers of great historical value, now bound up in nearly 900 volumes. It was chiefly formed by Sir Robert Cotton, who died in 1631, and augmented by his son and grandson, and, after their deaths, invested in trustees for the use of the public; and in 1757, it was removed to the British Museum. (See **BRITISH MUSEUM**.)

COUNTENANCE, *koun'-ten-ans* (Fr., *countenance*), the whole form of the human face, or system of the features.

COUNTER APPROACH. (See **FORTIFICATION**.)

COUNTERMINE, *koun'-ter-mine*. (See **FORTIFICATION**)

COUNTERPOINT, *koun'-ter-point*, literally, point against point; so called from the points formerly employed in music instead of notes—an important branch of musical science, which consists in the art of composing music in several parts either for a variety of voices or instruments; now synonymous with harmony, and nearly so with composition; the only difference being, that composition implies more of invention and of imagination than counterpoint. The invention of the latter is involved in great obscurity: by some it is attributed to Guido (a native of Tuscany, who was born about 900); but although he was the first to write on this subject, which had made little progress before his time, it is obvious that it was known to several of the earlier musicians. Its real origin appears to have been as follows:—When the organ was introduced into France, about 757, and used as an accompaniment to the voice, it gave a facility for producing several sounds simultaneously. This soon led to the discovery that there were some sounds among them, which, when struck together, caused agreeable effects: the minor third appears to have been one of the first of these. Other harmonies were also used, which (without mentioning those employed by several authors before Guido) show the origin of the art, and at the same time prove it to have been totally unknown to the ancients. The first regular contripointal composition was by Adam de la Hale, in the 12th century; but it was so far in advance of the musical knowledge of the time that the Pope forbade its use in the church. Primitive counterpoint is now called plain or simple counterpoint, to distinguish it from the modern figured or florid counterpoint, in which the melody is beautified and the general effect enriched by the frequent introduction of many successive notes in one part against a single note in another. When the laws of counterpoint began to be understood, vocal music came to be divided into four parts, the lowest of which was denominated *tenor*, the next *counter tenor*, the third *metotus*, and the highest *triplum* and *treble*. About the middle of the 15th century these parts were increased to six, and were called *bass*, *baritone*, *tenor*, *contralto*, *mezzo-soprano*, and *soprano*.

COUNTERSCARP. (See **FORTIFICATION**.)

COUNTERSIGN, *koun'-ter-sine* (Lat., *contra*, against; *signum*, sign), the name given to a watchword selected by the officer in command, and privately communicated to the guards and sentries posted about a camp, or at the entrance to a fortress, who have strict orders not to allow any one to pass into the citadel, or within the lines, unless he can give this word, and thereby show that he has the authority of the commanding officer to enter. The term is also applied to the signature of a minister or secretary to any writing signed by the Sovereign or superior, and is a guarantee for its authenticity.

COUNTER-TENOR CLEF, *koun'-ter-ten'-or klef*, the name given to the C clef when placed on the third line, in order to accommodate the counter-tenor voice—the highest natural male and the lowest female voice. It extends from E or F above G gamut to B or C above the treble clef note.

COUNTRY DANCE, *kun'-tre* (Fr., *contre danse*), a lively dance of French origin, and at one time so popular as to be transplanted into almost every country in Europe. Any number

of couples can take part in it. There are no established rules for the composition of airs to this dance, neither is it confined to any particular measure, so that any common lively song-tune may be adapted to it.

COUP, *koo* (Fr., a blow), a term used in various ways to convey the idea of promptness and force. *Coup d'état* is a violent and arbitrary political measure; *coup de théâtre*, a sudden and striking change in the action of the scene; *coup d'œil*, in military affairs, a rapid conception of the weakness and advantages of certain positions or arrangements of troops; *coup de main* signifies a vigorous, prompt, and decisive military attack.

COUPLET, *kup-let* (Fr.), in poetical composition, two lines which rhyme together, but the term is more generally applied to two lines which contain the complete expression of an idea, and are to some extent independent of the preceding or following lines. Some of the best examples are to be found in the writings of Pope, as, for example—

"What can ennoble sots, or fools, or cowards?
Alas! not all the blood of all the Howards."

COURANT, *koo-rant'* (Fr., *courant*, running), in Heraldry, when any animal, such as a deer or a dog, is drawn running at full speed, it is described as courant.

COURIER, *koor'-e-cr* (French).—There are two classes of couriers—public and private. Public couriers are employed by the Government to carry despatches expeditiously and safely to and from the ambassadors at foreign courts. They are accustomed to travel, able to speak several languages, and always ready, at a moment's notice, to set out either on horseback, by hired carriage, or by rail, night or day. They are acquainted with all the regulations of passports, &c. Private couriers are servants employed by the opulent, when travelling in foreign countries, to facilitate their route, by going before to make preparations, and by looking after their lodgings and general accommodation.

COURSING, *koars'-ing* (Lat., *curro*, I run), the sport of hunting hares with greyhounds, which follow the game by sight and not by scent. The breed of greyhounds has greatly improved in this country, and coursing has become very popular. Coursing meetings are held in open parts of the country where hares are abundant, and the owners of greyhounds enter their respective dogs for various stakes. A judge is appointed, whose duty it is to decide with respect to the merits of the dogs engaged. The sport then begins by two dogs being selected for a course. They are restrained by the "slipper," a man who holds them by a long strong cord, with a spring attached to their collars. The field is then beaten for a hare. When it is found, it is allowed 80 to 100 yards start, or "law," as it is called; the judge then gives the word "go," and the slipper frees the dogs by means of the spring. The judge follows the greyhounds through the whole course, and awards the victory to the dog which shows the finest qualities of speed, endurance, and sagacity, and not necessarily to the dog which kills the hare. Coursing is of great antiquity, and is treated of by Arrian, who flourished A.D. 150. It was first practised by the Gauls, and was a popular sport with the Ancient Greeks.

COWL, OR **COUL**, *kowl* (Lat., *cucullus*), is a sort of hood worn by the Bernardines and

Benedictines. There are two kinds—the one white and very large, worn on ceremonial occasions and when assisting at the office; the other black, and worn on ordinary occasions, in the streets, &c.

CRACOVIE NNE, *krak-o'-vi-en* the national dance of the Polish peasantry. The tune is of a rather melancholy character, and the dance is accompanied by singing couplets.

CRANNOGES, *kran-noags'*, a term applied to the lake-dwellings and fortified islands of the ancient Celts in Ireland, Scotland, and other countries. Although dwellings of this kind on Lake Prasias, in Macedonia, were described by Herodotus (book v. chap. 16), the subject did not attract much attention until vestiges of similar erections were found in other parts of Europe. In 1839, the first crannoge was discovered by Mr. W. R. Wilde, one of the secretaries of the Royal Irish Academy. After draining the small lake of Lagore, in the county of Meath, a circular mound, which had been an island, was discovered. It was thickly strewn with bones, and as these were being removed for manure, the island was found to be of artificial construction. Its diameter was about 140 feet, and it was formed by upright oak piles seven feet long, mortised into oak planks laid upon the sand and marl at the bottom of the water. The piles were united at the top by cross beams, and the space inclosed was divided into compartments filled with bones and black peaty earth. A second tier of piles was also observed rising from the lower tier. The bones were found to be those of horses, asses, oxen, sheep, dogs, &c.; and amongst them were a large number of swords, knives, spears, cooking utensils, and ornaments. Mr. Wilde's discovery was followed by the discovery of several other crannoges in Ireland, some of them perfectly artificial, and others partly natural and partly artificial. Crannoges are mentioned in the annals of Ireland as early as the 9th century, and continued to make a figure in history till the 17th century. In the winter of 1853, on account of the continued drought, the Lake of Zurich was unusually low, and the inhabitants of the village of Meilen endeavoured to regain a piece of land from the lake. During the process, the remains of rows of deeply-driven piles were discovered. About them were found a large quantity of weapons, tools, and utensils of very primitive form and make. On close examination, it was found that the piles had supported a platform, and that the whole building resembled the crannoges of Ireland. Since that time, many crannoges have been found in the upper and lower lakes of Constance, thirty in the Lake of Geneva, and twenty in the lake of Neuchâtel. The lake-dwellings of Switzerland resemble those described by Herodotus more closely than the Celtic crannoges. There is no mention of them in history, but their remains prove that they are ancient. Since 1857, the traces of crannoges have been found in nearly every part of Scotland; and remains of lake-dwellings have been discovered in Savoy, Upper Italy, Hanover, Prussia, and Denmark. Traces of a not very certain kind of crannoge were observed in draining a mere at Wretton Hall, near Thetford, in Norfolk. The lake-dwelling system must have arisen in the stone age, and endured through the bronze age, till, at least, the introduction of iron and the Roman sway in Helvetia. This fact is supported by the discovery of several iron swords, about three feet

long, with blades somewhat over two inches in width, and iron scabbards, by Colonel Schwab, in the lakes of Bienne and Neuchâtel, which are indisputably of the same type as those recognised as Romano-British and Gallo-Roman—that is, of the late Roman period, when the influence of an alien taste becomes visible in Roman manufactures.

CRANTARA, OR FIERY CROSS, *kran'-tar-a* (Gaelic, *crean tarigh*, the cross of shame), was a military signal employed in the Scottish highlands for collecting the distant and scattered clansmen to the standard of their chief. It was a firebrand, or wooden cross, which, after being dipped in the blood of a goat, was sent by a swift-footed messenger to the nearest hamlet, where he delivered it without uttering a word but the name of the place of rendezvous. The fleetest runner of the hamlet was immediately despatched with it to the next, and so on, till all had received notice. It was understood to denounce destruction by fire and sword against all who refused to obey the summons, and was called the Cross of Shame, because disobedience implied infamy. It was in use among the ancient Scandinavians, from whom the Highlanders appear to have borrowed it.

CRAYON, *kaa'i-on* (Fr., *crayon*, a pencil; *cræie*, chalk), the name of a pencil of any kind in France, but applied more particularly in this country to pieces of charcoal, and black, white, and red chalk, used for drawing on various kinds of tinted paper, and for sketching cartoons, or the outlines of paintings of considerable size on canvas. The best black crayons are made of a soft black earth found in Italy, and the best white ones of a fine kind of French chalk. Crayons are also made by mixing vegetable and mineral colouring matter with pipe-clay or chalk, and giving consistency and adhesiveness to the mass by the addition of a little milk, gum-water, wax, or soap.

CRENEL, OR CRENELLE, *kre-nel'* (Lat., *crena*, a notch).—The embrasures in battlements are so called because they resemble notches taken out of the parapet. A wall surmounted by a battlement is said to be crenellated. (See **BATTLEMENT**.)

In Heraldry, is a term implying that the outline of an ordinary is like that of the battlements of a wall.

CREOLE, *kre'-ole*, is a corruption of the Spanish *criollo*, a name which was originally given to all the descendants of Spaniards born in America and the West Indies. It was afterwards applied to the descendants of other Europeans, who were hence distinguished as French Creoles, Danish Creoles, &c. As now used, it is applied to such as have been born within or near the tropics; and it includes persons of all colours, which has led to the common idea that it implies an admixture more or less of African blood. In this country it is commonly applied to one born in South America or the West Indies, of European parents.

CRESCENDO, *kres-shen'-do*, in Music, a term employed to signify that the notes in the passage over which it is placed are to be gradually swelled.

CRESCENT, *kres'-sent*, a representation of the half moon with the horns turned upwards. It is now the emblem of the Turkish empire, but was previously that of the Greek or Byzantine

empire; and on many churches in Russia are crescents, surmounted by a cross.

Turkish Order of the Crescent.—An order founded in 1801 by the Sultan Selim III.; but as Mahometans are forbidden to wear such decorations, it is conferred only on Christians who have done service to the State. The order was suggested by a crescent adorned with diamonds, which the Sultan presented to Lord Nelson in 1799, after the battle of Aboukir, being worn by that distinguished admiral on his coat.

Duke Rene's Order.—In 1464, René, Duke of Anjou, brother of the King of Naples, instituted an order of the crescent, for the honour of God, the defence of the Church, the encouragement of noble actions, and the glory of the founder. The badge was a crescent of gold, with the motto "*Loz*" (*laus*). The Duke of Anjou and the King of Sicily were sovereigns of the order, which did not survive its founder.

In Heraldry, a crescent is employed as a bearing or charge, and as a difference designating the second son and his descendants.

CRESSET, *kres'-set* (Fr., *croisette*, a small cross), a light set upon a beacon, lighthouse, or watchtower. It also signifies a torch or lamp, or a small grate containing fire, and used in old times for lighting streets. Cressets were originally surmounted by a small cross, from which custom they derive their name.

CREST, *krest* (Lat., *crista*, a tuft), a portion of the armorial bearings of a nobleman or gentleman entitled to bear coat-armour, commonly used without the shield, being painted on the doors of carriages, and engraved on plate and signet-rings. In the days of chivalry, the crest or cognizance of the wearer was borne on the helmet. It was made of leather or light wood, gilded and painted, and a wreath of twisted silk was fastened round the lower part, where it was attached to the helmet. In modern times the crest is always drawn on a wreath composed of the principal metal and colour occurring in the bearer's coat of arms, the coils being of metal and colour alternately. Sometimes the crest rests on a cap of maintenance. The custom of bearing a symbolical figure on the helmet is of very great antiquity. Crests are supposed to have been introduced into England in the 12th century; they were then used as a means of recognising the bearer in a tournament. Richard I. assumed the crest of a lion, and with few exceptions it has been adopted as the crest of the royal family of England. They were generally assumed at the pleasure of the wearer; but there are cases in which crests have been specially granted to families which bear them.

CRESTE, OR CREST TILE, the name given to tiles running along the ridge of the roof of a building, and surmounted with trefoils, or any other ornament, as a finish. They are chiefly used in Gothic architecture.

CRIBBAGE, *krib'-baj* (Ang.-Sax.), a game of cards played by two persons. There are the five-card and the six-card games. The five-card is the original game, and affords the greatest scope for the exercise of skill. The points are scored upon a board, and sixty-one points constitute the game. All the kings, queens, knaves, and tens, count as ten each, and the rest of the cards according to their ordinary value. The points which reckon for the game are fifteens, thirty-ones, sequences, flushes (the cards in one hand being of the same suit), pairs, &c. After dealing, the players gather up their cards, and having taken out two each, place them, with their

faces down, on the table. These four cards form the "crib," which becomes the property of the dealer, under certain conditions. Points are scored in two different ways in cribbage—first in play, and second in reckoning up the cards held. After the crib is put out, the pack is cut by the non-dealer, and a card turned up by the dealer. When this card is a knave, it is called "two for his heels," and counts two to the dealer; and a knave held in hand, of the same suit as the turn-up card, entitles the player to score one; it is called "one for his nob." Six-card cribbage is played in a similar manner. When three parties play at the game, each plays on his own account, but in four-handed cribbage, there are partners, as in whist.

CRICKET (Sax., *cryce*, a stick), a well-known national English game, played upon a level piece of turf, generally about one or two acres in extent. In a full game of cricket, there are eleven players on each side, two umpires and two scorers. Although an ordinary game is usually played with eleven on each side, there is no restriction as to numbers; the parties may stipulate for eleven against twenty-two, twelve against twenty, &c. When a game is about to be played, the wickets, or stumps (three with movable cross pieces, or bails, on the top), are placed opposite to each other, three on either side, at a distance of twenty-two yards. Each wicket is twenty-seven inches in height above ground, and the three are connected at the top by two loose bails, four inches long each. Two lines are then drawn upon the grass at either end. The first is in a line with the stumps, and is called the "bowling-crease;" the other is parallel, four feet in front of the wicket, and is called the "popping-crease." Having chosen sides and tossed for innings, the players on the side which is out take their places. The bowler places himself behind the wicket from which he intends to bowl, and the wicket-keeper directly behind the wicket opposite to him. The rest of the men on the outside are called fielders, and consist of the long-stop, point, cover-point, short-slip, long-slip, middle-wicket, long-field off, long-field on, and leg. Two batsmen take up their posts before the wickets, and the bowler delivers the ball towards the opposite batsman, his object being either to hit the wickets or to bowl it in such a way that the batsman may play a catch. In either of these cases the striker is out. But if the batsman can hit away the ball to such a distance that he is able to exchange places with the opposite batsman, he scores one run to his side. Every time an exchange of places safely occurs, a run is scored to the side who has the innings. The delivery of every four balls constitutes an "over," when the bowling is transferred to the opposite wicket, and all the fielders change their positions accordingly. When a batsman is put out, another of the players on his side takes his place, and so on, till all the players but one are put out, when those who have had their "innings" field out, and those who have been fielding out take their innings. Each side has two innings, and the party that makes the largest score wins the game. Though comparatively modern in its origin, cricket seems to have taken the precedence of all other national games. Some counties, as Surrey, Sussex, Kent, Middlesex, Gloucester, Nottingham, and Lancashire have especial reputation for cricket, and in their county clubs are included the finest amateur and professional

players. Nearly every town, village, and school possesses its cricket-ground; and cricketers are to be found in all classes of the community, from peers to peasants. No game tends more to the development of muscular strength and activity than cricket. The Marylebone club is the recognised head and chief authority of the English clubs. Since 1859, English cricketers have visited Australia, New Zealand, and America; and, in return, Australian elevens, of extraordinary proficiency in the game, have played in this country.

CRIMP, a slang name for an agent who supplies ships with seamen, receiving so much per head for his trouble. Some of these persons have a bad reputation for entrapping sailors by false representations, or by the supply of drink to make engagements; and their practices have been much restrained in recent years by the operation of the Mercantile Marine Act, and the establishment of registries and sailors' homes.

CRINOLINE, *krin'-o-leen* (Lat., *crinis*, hair), a stiff fabric formerly made of horse-hair, and used in order to distend female apparel. The term originated among the Parisian milliners, and at first was only applied to this particular kind of hair-cloth; but it has been since applied to every kind of hoop by which women's dresses are expanded. Hoops formed an article of attire in the reign of Elizabeth, and were then called *fardingales*. They went out of fashion in James I.'s reign; but came in again in 1711, and remained in fashion till the reign of George IV. Crinolines of enormous size came into fashion about 1856, and lasted for nine or ten years. Leech's caricatures of the time, in *Punch*, scarcely exaggerate the dimensions of this absurd, and frequently dangerous, article of costume.

CROCHET, *kroshe'-ai* (French, a hook), ornamental work made by looping cotton into floral and other patterns by means of a hooked needle. Elegant and elaborate designs are produced, and squares of crochet work are in favour as loose covers for chairs and couches.

CROCKET, *krok'-et*, an ornamental projection on the edges of the sides of pinnacles, canopies, spires, &c., consisting chiefly of leaves and knots of foliage, and occasionally of animals. They were small and insignificant when they were first introduced; but they became larger and bolder in the Decorated and Perpendicular English styles.

CROFT (Ang.-Sax.), a small piece of land rented for tillage or feeding of cattle. In some parts of Scotland, especially in some of the western islands, this kind of petty farming is adopted, and those who rent the land are known as crofters, a poor and hard-working class of men.

CROMLECH, *krom'-lek* (Celtic, *crom*, circle, and *lech*, a stone), a circle of erect stones erected in pre-historic times, of which Stonehenge in Wiltshire is a well-known example. The name is also commonly given to a rude structure of two or more unhewn stones, with a larger stone placed horizontally on the top. (See **DOLMEN**.) Cromlechs exist in England, Scotland, Ireland, the Channel Islands, France, and Germany, and similar erections have been found in India and America.

CROP, *krop* (Ang.-Sax.), a term applied to

the quantity of corn, roots, grass, &c., grown on a piece of land at one time. The order in which different crops are made to succeed each other was not made a subject of scientific research till the middle of last century.

CROQUET, *kro'-kai*, a garden game, played by ladies and gentlemen, with wooden balls and mallets with long handles. It is played on a smooth lawn, and the aim of the players is to strike the balls so that they may pass through small hoops or arches of thick wire arranged in certain positions. The game may be played by any number of persons; but two sides of four each make the best game. The players, for distinction sake, take balls and mallets of different colours, one side generally taking the darker colours, the other the lighter. Croquet has to a considerable extent been superseded, as a fashionable game, by lawn-tennis.

CROSS, *kravss*, Crosses used as emblems are of various forms: in the Latin cross, the horizontal bar crosses the perpendicular near the top, while, in the Greek cross, which is similar to the cross of St. George, the horizontal crosses the perpendicular in the centre. In the cross of St. Andrew, the two bars cross each other diagonally. After the union of Scotland with England, the cross of St. George and that of St. Andrew were blended, forming the union jack. The Maltese cross is merely the Greek cross, with an ornamental expansion of the ends. *Monumental and Memorial Crosses* were often raised to mark either a boundary or the entrance to a sanctuary. The most ancient crosses of this character are the Runic crosses, supposed to be of Scandinavian origin; and many striking remains of these crosses are to be found in Great Britain and Ireland. In the island of Iona, there were, it is said, formerly 360 crosses of this kind. Monumental crosses were erected by Edward I. on the places where the body of Queen Eleanor rested while being borne to burial at Westminster, and are known as Eleanor crosses. The crosses of Charing, Cheapside, and Waltham and Northampton, belonged to these. The latter two still remain, and a reproduction of the cross at Charing has been erected in front of the Charing Cross Station in the Strand. The superb memorial of Prince Albert in Kensington Gardens, and the Scott memorial at Edinburgh, are fine developments of the principle of the old Eleanor crosses. Market or town crosses were originally stands from which the ecclesiastics preached. St. Paul's cross was one of the most famous of these. It was situated near the present site of St. Paul's Cathedral, and was essentially a place of preaching for the town. It was, in its latter days, in the form of a plain pulpit, made of wood, and was surmounted by a Maltese cross. Round it were arranged seats for the audience. It was displeasing to the Puritans, and was demolished by order of the Parliament. Nearly every old town in England has either a town cross or the remains of one.

In *Heraldry*, a cross is esteemed the most honourable charge on an escutcheon. As many as seventy distinct forms of the heraldic cross have been enumerated by writers on the subject.

CROSS, VICTORIA, a reward which may be granted to a soldier or sailor of any rank to mark any distinguished act of valour. It was first instituted in 1856, at the conclusion of the Crimean war. It is in the form of a Maltese

cross, and is composed of metal taken from the Russian guns captured at Sebastopol. In the centre of the cross is the royal crown surmounted by a lion, and on a scroll below is the legend, "For Valour." On the clasp two branches of laurel are represented, and the cross hangs from it supported by the letter V. The ribbon worn by soldiers is red, and that worn by sailors blue. Each recipient of the Victoria cross receives a pension of £10 per annum.

CROSS BOW. (See ARBALEST and ARCHERY.)

CROWN, *krown* (Lat., *corona*), an ornament placed upon the head, denoting regal or imperial dignity. Crowns were originally garlands formed of leaves, and in that form have been used by almost every nation. The regal crown first originated in the diadem, which was a fillet fastened round the head and tied behind. It is represented in the statues of Jupiter, the Ptolemies, and the kings of Syria. Kings were, however, generally distinguished by a fillet of a different colour from that usually worn. It was mostly in the form of a golden band, which, in time, began to form the basis of raised ornamental work, studded with costly jewels. The crown was used by the ancient Greeks as an emblem of office, as an ornament for victors at public games, and as a mark of distinction for citizens who had specially served their country. Amongst the Romans the crown was still more generally used. The *corona obsidionalis* was the crown most highly prized. It was bestowed by an army or beleaguered garrison on the general who rescued them. It was made of leaves or wild flowers gathered on the spot. The civic crown, composed of oak-leaves and acorns, was the crown next in esteem. It was bestowed upon any soldier who saved the life of a Roman citizen in battle. The man who gained it was entitled to many privileges. The mural crown, made of gold and surmounted with turrets or battlements, was bestowed upon the soldier who first scaled the ramparts of a besieged city. The *corona vallaris* was bestowed on the person who first mounted the rampart or entered the camp of an enemy; and the *corona navalis* was bestowed on him who first boarded an enemy's ship. Both the mural and civic crowns are used at the present time in heraldry. The triumphal crown was of three kinds, and was bestowed upon generals who had obtained a triumph. Several other crowns of different forms were worn by the Romans. Among these may be mentioned the sacerdotal crown, sometimes made of gold, sometimes of ears of corn, and sometimes of olive-leaves. It was worn by the priest and bystanders during a sacrifice. The funeral or sepulchral crown was placed upon the head of the dead. In Greece these crowns were usually made of parsley. The convivial crown was a wreath of flowers worn on festive occasions. The nuptial crown was a wreath of verbenas plucked by the bride and worn by her. The natal crown was a chaplet hung over the door of a chamber where a child was born. The crown of Great Britain is a circlet of gold, surmounted alternately with four crosses and four fleur-de-lis. Four arch-diadems, enriched with pearls, arise from these, and close under a mound ensigned with a cross pattée. The gold circle is also adorned with diamonds, sapphires, rubies, pearls, &c. The crowns worn by princes and noblemen are called coronets; that of the Prince of Wales is composed of a

circle or fillet of gold; four crosses pattées are placed round the edge between the same number of fleurs-de-lis. From the two centre crosses a bent arch extends, surmounted by a mound and cross. The coronet of a duke is a circle of gold, richly chased, having on the edge eight strawberry-leaves; that of a marquis, a circle set round with four strawberry-leaves, and as many pearls interposed on pyramidal points. In an earl's coronet there are eight pearls, set on pyramidal points, and eight strawberry-leaves, which are lower than the pearls; that of a viscount is surrounded with pearls only, the number being unlimited; a baron's coronet has only six pearls, all at equal distances. All the coronets of the British nobility, as at present worn, surround caps of crimson velvet, turned up with ermine. Viscounts and barons had no coronets allowed them until after Queen Elizabeth's reign.

CROWN-WORK, *krown'-wûrk*. (See FORTIFICATION.)

CRUSCA, ACCADEMIA DELLA, *kroos'-ka ak-ka-dai'-me-a dell'-la* (Ital., the academy of the bran or chaff), was the name of one of the earliest, and one of the most celebrated of the societies of modern Europe. It was founded at Florence in 1582, chiefly through the exertions of the poet Antonio Francesco Grazzini, and was so called from its chief object being to sift or purify the national language. The great work of the academy was the "Vocabolario degli Accademici della Crusca" (or Dictionary of the Italian Language), which was first published at Venice in 1612, and is still regarded as the standard authority on the Italian language. This society has recently been incorporated with two other societies, under the name of the Royal Florentine Academy.

CRYPTOGRAPHY. (See SECRET WRITING.)

CRYSTAL PALACE.—After the closing of the Great Exhibition of 1851, a great desire was felt to retain in some permanent form, the remarkable edifice of iron and glass which had been erected in Hyde Park from the designs of Sir Joseph Paxton; and in December, 1851, the materials were sold for £70,000 to a company, and a splendid site, on the summit of a hill, partly in the Parish of Sydenham, Kent, and partly in Norwood, Surrey, having been obtained, a larger and more beautiful structure was erected, in which the materials of the Hyde Park Exhibition building were utilized, an arched roof for the nave and two fine transepts being added. Very extensive grounds were laid out in the finest style of landscape gardening under the direction of Sir Joseph Paxton, and a number of fountains formed, far surpassing anything of the kind previously existing in this country, and more than rivalling the famous fountains of Versailles. Under the direction of Sir Joseph Paxton, Mr. Owen Jones, Mr. Digby Wyatt, and others, the interior of the nave of the building formed a beautiful conservatory and winter garden and a number of courts were formed, illustrating and reproducing by casts and reconstructions the plastic art and the architecture of many ages and countries. The first column of the building was raised on the 5th August, 1852, by Mr. S. Lang, M.P., and on the 10th of June, 1854, the Crystal Palace was opened by the Queen. Fêtes and receptions of the most splendid character have since been given. The Emperor Napoleon and the Empress Eugénie, were received in great state in

April 20, 1855; the Sultan of Turkey, and the Viceroy of Egypt in July, 1867; the Shah of Persia in 1873; the Czar of Russia in 1874; and the Sultan of Zanzibar in 1875, and many commemorations on a colossal scale have taken place. In June, 1857, the first of the series of the Handel Festivals were held, the chief works of the great composer being performed by such a number of vocal and instrumental performers as had never before been united in an orchestra. The vocalists numbered 2,765, and the instrumentalists 393, conducted by Sir Michael Costa. On the third day, the King of the Belgians, the Prince Consort, and 26,827 persons were present. An orchestra of extraordinary size was constructed especially for the occasion, and one of the finest organs in England erected. There were repetitions of the Festival, with an augmented number of the performers, in 1862, 1865, 1868, 1871, 1874, and 1877. The ordinary concerts at the Palace have attained great reputation. On the 30th of December, 1866, the north wing was destroyed by fire, but was restored and reopened in February, 1868. A very fine aquarium is now one of the most attractive features of the Palace.

The Building and Grounds.—The structure is 1,600 feet long; the width throughout the nave is 312 feet, and at the central transept 384 feet; the height of the nave is 110 feet above the ground floor, 74 feet high in the transept. Two spacious galleries traverse the building; and in the nave are marble basins with water lilies, glass and bronze fountains, flower beds of exquisite beauty, and innumerable pendant baskets filled with flowers. Groups of statues intermingled with the "greenery." In the central transept is the grand orchestra, with room for four thousand performers, and the great organ of 4,568 pipes, constructed by Gray and Davidson. Adjoining the transept are the opera theatre and the concert room; and in the galleries are a picture gallery and reading-room.

The chief courts are the Egyptian, Greek, Roman, Alhambra, Byzantine, Middle Age, Renaissance, Italian, and Pompeian. There are also courts in which the results of modern art and technical skill are exhibited. From the Palace the descent is made by a succession of terraces, ornamented with statuary, to the grounds. The fountains are the largest in existence, some of them throwing water to the height of nearly 250 feet. There are also water-towers and water-falls. The water is supplied from an artesian well 575 feet deep, and forced by steam power to the summit of one of the end towers, 284 feet high, from which it descends to feed the fountains. There are ten miles of water pipes beneath the grounds. In the lower part of the gardens is a large lake, with pleasure boats, and on an island are the extraordinary reproductions by Mr. Waterhouse of colossal antediluvian animals. A cricket ground and other accessions of popular amusement add to the attractions of the extensive and beautiful grounds. The northern tower can be ascended, and the view over six counties extends to the estuary of the Thames.

CUCKING-STOOL. (See DUCKING-STOOL.)

CUE, *ku*, the last words of a speech spoken on the stage which the actor who is to answer catches and regards as an intimation to begin. It is also applied to any hint given to an actor on the stage, as to what he has to do or say. (See also BILLIARDS.)

CUIRASS, *kwe-ras'* (Fr., *cuir*, leather), a protection for the breast and back of a soldier, originally made of thick leather, but now of metal and consisting of a back and breastplate buckled together. It is still worn by the Lifeguards and the Horseguards. *Cuirassiers* was the name given in continental armies to heavy

cavalry wearing cuirasses, or metal back and breastplates.

CUISSARTS, *kwe'-sarts* (Fr., *cuisse*, the thigh), in old armour, strips of ironplate worn round the thighs and rivetted together. The better form of the word is "cuisses." In Shakespeare's *King Henry IV.*, Sir Richard Vernon says: "I saw young Harry with his beaver on, his cuisses on his thighs, gallantly armed."

CULVERIN, *kul'-ver-in* (Fr., *coulevrine*), the name of a piece of ordnance, used in the 16th and 17th centuries, of great length, and formed to throw a ball to a considerable distance. It was 5½ inches in the bore and threw a ball about 18 lbs. in weight. The bore of the demi-culverin was 4 inches, and the weight of the ball about 9 lbs. "Queen Elizabeth's pocket pistol," at Dover Castle, is a culverin.

CUNEIFORM, *ku-ne'-e-form* (Lat., *cuneus*, a wedge, and *forma*, form), is the name given to an ancient species of written language found on the monuments of the ancient Assyrian, Babylonian, and Persian empires. It is so called from the letters being composed of parts resembling a wedge, a nail, or an arrow-head. It is found carved in rocks and sculptures, or stamped on bricks and tiles; and is met with on the ancient monuments of Persepolis, and other cities of the Persian empire, among the ruins of Babylon and Nineveh, and even in Egypt. It appears to have been first employed in Assyria and Media, and to have subsequently spread over the whole extent of the Persian empire. There are three distinct alphabets or kinds of cuneiform writing, and which are mostly found together in parallel columns, being translations of each other. The most ancient of these is the Assyrian, which consists of about 400 different characters. The second of these is called the Median, which is a modification of the first, and consists of about 100 characters. The most recent is the Persian, which consists of only 39 to 44 letters. It is much more refined than the others, and the forms are much less complicated. The letters here are all very distinctly formed, none being at all doubtful, and the words are separated from each other by an oblique stroke. This language is believed to be the original of the modern Persian, and to be nearly allied to the Sanscrit. In the Assyrian inscriptions, the different groups of wedge-shaped characters represent, first, ideas, but having been adopted from a foreign people speaking a different language, the words which originally corresponded to these ideas were entirely different from the Assyrian words representing the same ideas; second, syllables used in spelling words without any reference to the meaning of the characters are representatives of ideas. Thus, one of the great difficulties to be overcome in translating any given passage is, to determine whether a group is used as an ideograph or a phonograph; and to this is added the still greater difficulty that the same character as an ideograph often represents several different ideas, and as a phonograph several different syllables. But assistance has been afforded by some of the clay tablets written in columns, the first containing the ideograph; the second, their meaning in phonographs; and in some tablets is a third column, giving the meaning of the ideograph in the Assyrian language. As far back as 1678, inscriptions in wedge-shaped, or "arrow-head" characters had been noticed among the ruins of Persepolis; but there was no

clue to the meaning. In 1674, M. Chardon copied at great length some of the inscriptions; and in 1700, Thomas Hyde, a learned Orientalist, gave considerable attention to the subject, but came to the conclusion that the "so-called" inscriptions were merely fanciful designs, efforts to obtain an ornamental effect by variation of groups of wedge-shaped figures. Others supposed they were only accidental chippings made by masons, and one German investigator decided that the marks were made by worms. The elder Niebuhr was convinced that the marks were alphabetical in character, and other continental scholars agreed with him though unable to obtain any clue to the meaning. In 1802, Grotefend, an eminent philologist of Hanover, announced that he had been able to trace a complete alphabet. Little further progress was made until 1835, when Sir Henry Rawlinson examined and copied the famous inscription of Behistun, in Persia, engraved on the perpendicular side of a lofty mountain, 300 feet above the level of the plain, and only reached with great difficulty. It was found that there were three inscriptions in different forms of the cuneiform characters, varying in some respects, but partaking of the same general character. Rawlinson studied these inscriptions, and was at length rewarded by being enabled to translate them, and ascertain, with the aid of his knowledge of the Persian language, the sound value of each character, and to gain an insight into the grammatical construction. The study was eagerly followed up by foreign and English scholars, and many translations have been made of the inscriptions on the monuments and fragments recently discovered.

CUPOLA. (See **DOMED**.)

CUR, *ker* (British, *cor*, anything small), a term commonly applied to small dogs of little value and mongrel breed; but more strictly applied by some naturalists to dogs of small size, but active, intelligent, and easily domesticated. Of such dogs, the terrier is the type.

CURFEW, *kur'-few* (Fr., *couvre feu*, cover-fire), the ringing of a bell as a signal to the inhabitants to extinguish their fires. This practice originated in England through William the Conqueror, who ordained, under severe penalties, that, upon the ringing of a bell at eight o'clock in the evening, all lights and fires should be put out, and every one should go to bed. The custom of ringing the curfew-bell about eight o'clock is still kept up in many places, though its original significance is lost. The law by which it was ordered to be rung was repealed by Henry I., in 1100. The practice of ringing the curfew-bell existed on the Continent long before the Norman conquest.

CURLING, *ker'-ling* (Teut), a favourite sport played upon the ice in Scotland. The sport is regulated by certain rules issued by the Caledonian Curling Club, and artificial shallow pieces of water are maintained for the purpose of playing it. The game is played with flat round stones about 9 inches in diameter, and from 30 to 45 lbs. in weight. Each stone, of which every player has a pair, has a handle. A piece of ice is chosen, about 35 yards long and 8 or 9 feet broad, which is called the *rink*. The players choose sides, and points with circles round them, called *tees*, are marked off at either end. The number or points required to make game is usually 31, and the sides play alternately. The

principal object of the curler is to drive his stone towards the tee. Much depends upon throwing it with strength, as well as discretion; for it is often necessary to drive away the stone of an adversary which has obtained a favourable place. The game is generally played with great keenness. It has of late years been introduced into England and Canada.

CURTAIN, *kurt'-n*, a drapery covering a window, which can be drawn aside by means of rings running on a rod, and looped up in an ornamental manner at the sides. Some very rich and expensive fabrics are used for this purpose in upholstery, generally harmonizing in colour and style with the furniture of the room. Curtains of white muslin or lace have a pleasing effect in summer from their lightness and coolness. Curtains form part of the drapery of old-fashioned beds; and in hot climates muslin curtains are used to enclose the bed, as a protection against insects, while not obstructing the necessary access of air. In a theatre, a large curtain hangs in front of the stage, and is drawn up when the performance begins.

In Fortification, curtain is the name given to that part of the rampart built between the batteries, and consequently connecting their flanks. (See FORTIFICATION.)

CURSE OF SCOTLAND, *kers*, a popular term applied to the nine of diamonds in a pack of playing-cards. The probable explanation of the phrase refers to the hatred entertained by the Scotch against John Dalrymple, Earl of Stair, on account of his connection with the massacre of Glencoe, in which every man under seventy years of age was killed, and a large number of women and children died by cold and hunger. By some reports, the order for the massacre was signed on the back of a nine of diamonds card; but the more probable origin of the phrase consists in the fact that the coat-of-arms borne by Dalrymple was "or, on a ground saltire azure, nine lozenges of the field." The resemblance which these nine lozenges bore to the nine of diamonds probably gave the origin to this strange term.

CUSP.—In Architecture, the term is applied to the points formed by the meeting of curves, in the interior of trefoils, quatre-foils, &c., and in the ornamental stone tracery of church windows these points are often adorned with foliage. The cusp was introduced towards the close of the first period of Gothic architecture, and became a marked feature, in the Decorated English and Perpendicular English styles.

CUTLASS, *kut'-las* (Fr., *couteau*), a broad

heavy sword with a basket-hilt of iron, mostly used by sailors in boarding an enemy's vessel. (See BROADSWORD.)

CYCLE, *si'-kl* (Gr., *kuklos*, a circle), the name given to any period of time, or a certain number of years, in which certain events and phenomena recur at intervals, in the same regular order of succession, coming exactly to the same point again at the same time, or very nearly so, at the commencement of each cycle. An explanation of the most remarkable of these cycles, and those in common use, will be found under their respective names. (See CALIPPIC PERIOD, GOLDEN NUMBER, INDICTION, JULIAN PERIOD, METONIC CYCLE, SOLAR CYCLE.)

CYCLOPÆDIA. (See ENCYCLOPÆDIA.)

CYCLOPEAN ARCHITECTURE, *si-klo'-pe-an* (Gr., *kuklops*, round-eyed, from *kuklos*, a circle, and *ops*, an eye), an expression applied to any wall that is formed of large, irregular, unhewn stones, piled together without mortar or cement of any kind. Walls of this description are to be seen at Tiryus, Mycenæ, and Epirus, in Greece, that were most probably built by the ancient Pelasgi; and similar specimens of building, though not on the same gigantic scale, exist in Italy, Asia Minor, and Peru, as well as in some parts of the British Isles; among which may be mentioned the Laws, near Dundee, in Scotland, and the Giant's Sconce, near Coleraine, in Ireland. The name was given to walls of this kind because they were supposed to have been built by the Cyclopes, one-eyed giants, who were the workmen of Vulcan.

CYCLORAMA, *si-klo-ra'-ma*, a picture representing a landscape, wound round on slowly revolving cylinders, producing an effect on the spectator of motion.

CYMBALS, *sim'-bals* (Lat., *cymbalum*), musical instruments of percussion, the origin of which is very ancient. Xenophon says they were invented by the goddess Cybele. When struck together, the cymbals produce a loud harsh tone of no fixed pitch. The best are obtained from China and Turkey; and all the attempts of Europeans to discover the metals of which they are made have hitherto proved abortive. Although best adapted for military bands, modern composers often introduce them in the orchestra with very good effect.

CYMBEL, *sim'-bel*, an organ stop, consisting of three ranks of pipes. In some old continental organs, the cymbel stop acted on small bells.

CYMRI. (See CELTS.)

D.

D is the fourth letter of our, as well as of the Latin, Greek, and Hebrew alphabets. The Greek name is *delta*, the Hebrew *daleth*; and our form of the letter, which is the same as the Latin, is evidently derived from the Greek Δ, by rounding off the right-hand angle into a curve. The Hebrew *daleth* signifies a door, and in its earlier form it bore a manifest resemblance to the door or opening of a tent. **D** is the medial letter of the order of dentals or palato-dentals, and readily interchanges with those of the same order; as

German *tief*, deep; *traum*, dream; *du*, thou; *dein*, thine. It also readily interchanges with the letter *t*; as, Greek *dapsiles*, Latin *lapsilis*; Latin *cauda*, Spanish *cola*. (See *L*.) The Latin **D** is frequently changed into *z*, *s*, or *ss* in German; as *duo*, *zwei*, two; *decem*, *zehn*, ten. **D** also seems to manifest a kind of affinity for the letter *n*, and is drawn by it into a number of words to which it does not radically belong; as Latin *tener*, English *tender*. *Di* followed by a vowel is sometimes changed into *j*; as, *diurnal*,

journal. D, or as it was formerly written, IO, is the Roman numeral for 500. In Music, D is the second note of the diatonic scale, answering to the *re* of the Italians.

DA CAPO, or D.C., *da ka'-po* (Ital.), in Music, an expression placed at the end of a piece to indicate that the performer is to return to the beginning of the movement and finish where the word *fine* is marked.

DACTYL, *dak-til* (Gr., *daktulos*, a finger), in Greek and Latin poetry, is the name of a foot or measure consisting of a long and two short syllables—as in *cārminā ōmnibūs*. It is so called from its resemblance to a finger, which has a long and two short joints. Dactylic verses are hexameters which end in a dactyl instead of a spondee.

DACTYLOLOGY, *dak-til-ol'-o-je* (Gr., *daktulos*, a finger, and *logos*, discourse), denotes a mode of discoursing with the fingers, the art of communicating ideas by means of the fingers. (See **DEAF** and **DUMB**.)

DADO, *daŭ-do* (Ital., *dado*, a die or cube), the name of the square plinth or pedestal on which a column or statue is sometimes placed. It is in the form of a cube—whence its name. In the internal decoration of buildings, the term is often applied to the boarding or paneling which covers the lower part of the walls of a room, finished by the skirting-board below, and an impost, or small projecting cornice, called a chair-rail, above. The dado of a room, including its three parts, is about three feet in height. It is commonly found in houses of the 17th and 18th centuries; and has been revived by æsthetic decorators of the present day.

DAG, *dag* (Fr., *dague*), the name of a handgun or pistol, invented in the early part of the 16th century, resembling the pistol in form, but having the butt straight and flat, and terminating in a square surface instead of being curved and finished by a rounded knob like that of the pistol.

DAGGER, *dag'-ger* (Fr., *dague*), a weapon consisting of a short blade, sometimes broad, two-edged, and tapering to a point, and sometimes triangular in form, like a bayonet, used for stabbing at close quarters.

DAGOBA. (See **TOPE**.)

DAIS, *dais* (Fr., *dais*).—In the common acceptance of the word, the dais means the raised flooring at the upper end of a hall, on which the high table stands, and where the most distinguished guests are seated, or the platform on which a throne, or chair of honour, is placed. This also seems to be the meaning of the term when it occurs in the works of old English poets and prose writers. In France, it means the canopy erected over a raised platform occupied by the sovereign at any reception or public ceremonial, as well as the platform itself; and the canopy carried over the host or sacred wafer, when the priests are bearing it to the bedside of a dying man, is so called. Originally it most probably meant the canopy only, under which a throne, altar, font, or statue was placed; and was next applied to the elevated platform on which such things were placed, and afterwards to any piece of flooring that was higher than the rest.

DAME, *daim* (Lat., *domina*, a mistress), formerly a title of honour given to high-born ladies, in order to distinguish them from the

wives of citizens and the ordinary commonality. The prefix *ma* was given to the word *dame* on account of the great courtesy shown to ladies of high rank. *Madame*, "my lady," was applied to a lady of title; and in France, *Notre Dame*, our Lady, was applied to the Virgin Mary as a term of veneration and homage. The word *dame*, in England, is not much used, but in general signifies a married woman. The French word *madame* is shortened into *madam*, and is used in a similar sense.

DANCE OF DEATH, *danse*, a term applied to a certain class of allegorical representations generally dating about the 14th century, and illustrative of the power of death over the human race. It was a drama performed in or near churches, and consisted of short dialogues between Death and twenty-four or more followers. It originated in Germany, but was afterwards greatly in vogue in France, where it was called *la Danse Macabre*, from St. Macarius, an Egyptian anchorite. Shortly after its introduction into France, pictorial representations of the dance began to be made, and remains of these are to be found not only in many places on the Continent, but also in Great Britain. The drama was altogether laid aside in the middle of the 15th century, and the pictures held the chief place of importance. Hitherto they had been placed only in the quiet cloisters of the convents, but now they were exhibited in public, and soon lost their original character. The grotesque idea of Death dancing with his victims was departed from by Holbein, who, availing himself of the subject, produced fifty-three distinct subjects for engraving, which he called "Imagines Mortis." The originals are at St. Petersburg. The term "Dance of Death" was applied to the frenzied movements of the Flagellants about the end of the 14th century. (See **FLAGELLANTS**.)

DANCETTE, *dan-set'*, one of the eight peculiar forms of partition-lines recognised by English heralds. It is a zig-zag line, the indentations of which are of a great size.

DANCING, *dans'-ing* (Ger., *tanzen*), is the art of moving in measured steps, or adapting the movements of the body to the sounds of music. There is no account of the origin of the practice of dancing among mankind. It is found to exist among all nations, even the most rude and barbarous. Among the Jews, dancing seems to have formed part of the religious worship on some occasions, as may be seen from several passages in the Old Testament; as, "Let them praise His name in the dance," Ps. cxlix. 4; and "David danced before the Lord," 2 Sam. vi. 14. The ancient Greeks made the art of dancing into a system, by which the different passions could be powerfully expressed. Homer mentions dancing at entertainments, and Aristotle ranks dancing with poetry. The Spartans compelled their children to practise dancing from the age of five; they were led by men, and sang hymns and songs as they danced. The Pyrrhic dance was danced by the Spartan youths; it was expressive of a sham fight. There were three kinds of dances among the ancients: military dances, intended to make the body robust; domestic dances, for amusement; and mediatorial dances, which were in use in expiations and sacrifices. The early Christians danced at their religious assemblies, although there is no mention of the practice in the New Testament. In all parts of

India, dancing-girls, known as nautch-girls, or bayaderes, take part in festivals and solemnities. At the present day, dancing is a favourite amusement as a social custom and healthful exercise.

DANISH LANGUAGE AND LITERATURE, *dain'-ish*.—The Danish language was originally a dialect of the so-called Old Norse, which, on account of the political superiority of the Danes over the other Scandinavians, was also called the "Dönsk Tunga,"—i.e., the Danish language. The Danish is the most changed of the languages derived from the Old Norse; the Swedish and Norwegian being less so, and the Icelandic least of all. A considerable influence was exerted upon the language from contact with the Germans. The Reformation introduces another era in the history of the Danish language; and the translation of the Bible into it gave it a fixed character, and raised it to the rank of a written tongue. As in Germany, so also in Denmark, a rage for everything French prevailed for a time, and many Gallic terms were then introduced. A reaction, however, took place in the latter half of the 18th century; and, since the beginning of the 19th, much has been done to restore and maintain the purity of the Danish tongue, by the establishing of a taste for Old Norse studies, and by the writings of such men as Baggesen, Oehlenschläger, Grundtvig, and others. Since the union of Norway with Denmark, towards the end of the 14th century, the Danish has been the literary language of Norway; and it is also the language of the educated classes, as well as that generally spoken in the towns. The modern Danish is one of the softest languages now spoken in Europe. When a foreigner hears it spoken for the first time, he hardly perceives any sounds in it except the vocalic, the consonants being so much softened in pronunciation that they scarcely appear. The vocalic system is hence very perfect; and Dr. Rask has distinguished ten vowels, the sounds of which are all quite distinct. The inflections are few and simple, and the language is one that may be easily mastered. Although Denmark can scarcely be said to have possessed any national literature, properly so called, prior to the 18th century, yet its origin may be carried back to the time of the Reformation. The oldest remains of the Danish language do not ascend higher than the 12th century, and consist of laws of the early kings; as the "Skaanske Lov," the "Sjellandske Lov," &c. To the 12th century belong the works of the historians Saxo Grammaticus and Svend Aagesen, which, however, are in Latin. In the 13th century, we meet with what seems to be the oldest of the Danish heroic songs, or Kjömpeviser, and which are still more numerous in the 14th. (Collected by Nyerup, Abrahamson, and Rabhek, 5 vols., Copenhagen, 1810-14; Supplemented by Rasmussen and Nyerup, 2 vols., 1821.) The subjects of the earlier of these poems are the deeds of giants and demi-gods, romantic tales and songs; the later poems are more strictly historical. Many of these songs were fitted to ancient melodies, and are still sung. Like the German, the Danish owes its character as a written language to the Reformation. The greatest writer of this period in Denmark, and in a certain sense the founder of modern Danish literature, was Christiern Pedersen (1480-1554), who, besides a number of other works, had a principal hand in the translation of the Bible. The literature which

thus received a stimulus from the Reformation at first specially took a direction towards history, as well as to investigations connected with northern antiquities. There appeared in the 16th and 17th centuries not only a number of works of the first importance on the history of the country, both in Danish and Latin, but there were begun, even in the 16th century, investigations into the northern antiquities which have been so successfully followed up in recent times by Haldersen, Olavsen, Magnussen, Rask Rafor, Müller, Thomsen, Petersen, and others. The period of modern Danish poetry may be said to have commenced immediately after the Reformation. At first the subjects were generally of a sacred nature, as we see in the works of Raach, E. Pontoppidan, and others. Arreboe, who was the first of their epic poets, describes, in his great work, the "Hexameron," the events of the first six days of creation. Danish poetry reached its first culmination during the time of the lyric poet Thomas Kingo (1634-1723) and his contemporary Jorgen Sorterup. A new epoch commenced with the genial and versatile Ludvig von Holberg, the creator of the Danish Stage. He, in the first half of the 18th century, and Ewald in the second, are considered to mark the golden age of Danish literature. The first truly national tragedy was Ewald's "Rolf Krage;" and beside him, as dramatists, stand Samsøe, Sander, and Thaarup. Among the other poets belonging to this period, are Jens Baggesen, Tullin, Falster, Friman, Brunn, Zetlitz, the brothers Trojel, Pram, and others. A new impulse was given to poetic literature by Oehlenschläger (1779-1851), who had as contemporaries in the same field, Stoffeldt, Ingemann, Grundtvig, Heiberg, Overskou, and others. Among the most recent poets are Herz, Blicher, Hølst, Rosenhof, Winther Von Hauch, P. L. Möller, Molbech, and Grundtvig. As a poet and writer of short tales, Hans C. Andersen has acquired a European reputation, and Gjellerup, Schandorph, Skram, Drachmann, Havn, and Caril Etlar are successful writers of fiction. In the region of history and archæology are the names of P. E. Müller, N. M. Petersen, H. Engelstoft, J. Möller, Molbech, Werlauff, Knudsen, Estrup, and Worsaae; while important historical works have also been produced by G. L. Bader, F. L. Jahn, L. C. Müller, R. Allen, Nathanson, Wegner, Ersley, Brun, Thorsøe, Nielsen, Boesen, and O. Müller. As publicists, are distinguished Dirckinck-Holmfeldt and Ostwald; as statisticians, A. Baggesen, Bergsøe, Nathanson, Ruf, and Ansen. The services rendered by Schouw to physical geography, and by Oersted to physics and chemistry, are known and acknowledged far beyond the limits of their native country. Among theologians are Martensen, Myntner, Clausen, Nielsen, and Scharling; and among jurists, A. S. Oersted, Algreen-Ussing, and Søren Kierkegaard occupy a first place. As a philologist and critic, Madvig has made himself a European reputation; while Westergaard, from his knowledge of the languages of India and Persia, and Brøndsted and Petersen, from their knowledge of classical antiquity, have rendered good service to learning.

DATA, *dai'-ta* (Lat., things given), in Geometry, are certain things or quantities which are given or determined by the conditions of a particular problem. In Philosophy, Medicine, &c., the facts from which an inference is drawn are called data.

DATE, *dait* (Lat., *datum*, given), the time when an event happened, or when anything is to be done. The date of an event, or of a document, is often of great importance; but it is frequently a matter of great difficulty to ascertain it correctly. In all dates after 1582, it is necessary to ascertain whether the old or new style was used at the time and place specified. (See **CALENDAR** and **STYLE**.) Many old documents, are dated from some particular service of the church on the day of writing; and in some nations, for a great length of time, it was customary to date from the year of the monarch's reign.

DATIVE, *dai'-tiv* (Lat., *dativus*, from *do*, I give), in the grammar of the Latin and some other languages is the name of the third case in the declension of nouns, and serves to denote participation by the noun in the action of the verb which accompanies it.

DAVID'S DAY, *ST.*, *dai'-vidz*, is held on the 1st of March, and was originally dedicated to St. David, archbishop of Menevia, now called St. David's, in Pembrokeshire, where he died about 601. St. David is the patron saint of Wales, and is said, during the days of King Authur, to have won a victory over the Saxons. During the fight, the archbishop's soldiers wore leeks in their caps, as distinctive marks. In memory of this conflict, the Welsh still wear the leek on St. David's day.

DAWK, OR **DAK**, *dauk*, a mode of travelling adopted in India. The traveller is borne in a palanquin from station to station in his route, and his luggage or clothes are carried in boxes or baskets, called *pettarahs*, by separate bearers who accompany the palanquin. A travelling-carriage, with seats for four, is used upon the great trunk road from Calcutta to the Upper Provinces: it is called a horse-dawk; but it is not generally in use in other parts of the country.

DAWN, *dawn* (Sax., *dagian*), the break of day, the twilight, or half-light that occurs between the first appearance of light and the rising of the sun.

DEAD LANGUAGES is a term employed to denote such languages as are now no longer spoken by any people or nation, in contradistinction to such as are so spoken, which are known as living languages.

DEAF AND DUMB, EDUCATION OF THE.—The education of the deaf and dumb has only recently begun to receive a due amount of attention. We are told by Bede that a deaf man was taught to repeat words and sentences by John, bishop of Hagulstad (Hexham), who flourished in the latter half of the 7th century; but eight centuries elapse before we read again of any attempt to instruct this unfortunate class of persons, when Rodolphus Agricola, a native of Gröningen, mentions a deaf mute that he had known having been taught to note down his thoughts. Half a century later, the learned and versatile professor of Pavia university, Jerome Cardan, gave to the world the theoretical principles upon which the instruction of the deaf and dumb is founded. He says, "Writing is associated with speech, and speech with thought; but written characters and ideas may be connected together without the intervention of sounds, as in hieroglyphic characters," and asserts that on this principle the instruction of the deaf and

dumb is possible though difficult. Soon after this time, Father Ponce (1520-84), a Benedictine monk, acquired a great reputation for teaching the deaf and dumb to speak and write. In 1620, Juan Paulo Bonet, a Spaniard like Ponce, and a monk of the same order, wrote a book on the instruction of deaf mutes, and invented a one-handed alphabet. From that time the subject came to receive more attention, a number of works were published, and various systems proposed. Among the persons who more particularly distinguished themselves by their labours in this field, were Dr. John Bulwer, Dr. John Wallis, Dr. William Holder, George Dalgarno, in England; John Conard Amman in Holland; Heenicke in Germany; and Rodrigue Pereire in France. The first schools established for the education of deaf mutes were those of the Abbé de l'Épée in Paris, and Mr. Braidwood in Edinburgh, both in 1760. The system of De l'Épée was much improved by Sicard, his pupil and successor in the Paris institution. In 1783, Mr. Braidwood, removed to Hackney, near London, where he taught for many years with great success. The late Dr. Watson, so long superintendent of the London Asylum, was instructed by him, and stood in the same relation to him that Sicard did to his master De l'Épée. In 1792, the London Asylum was founded, and it has been the means of doing much good among this unfortunate class. Since the beginning of the present century, a number of similar institutions have been founded in this country. Churches, in which the service is conducted by means of the finger alphabet, exist in the metropolis and other large towns. The objects to be accomplished in the education of a deaf mute are to teach him an entire language, and to give him all that mass of moral, religious, and ordinary knowledge that is necessary for him as a social and immortal being. This has to be done by signs, and the meaning contained in the signs has also to be conveyed to him. The first and most important operation in instructing the child is that written words have a meaning, and suggest to all persons of education the same idea. The means employed in the instruction of the deaf and dumb are—1, the visible language of pictures, signs, and gestures; 2, the finger alphabet or dactylography, and writing; and 3, articulation and reading on the lips. The first is the earliest and most simple mode of communicating instruction. Dactylography, or the manual alphabet, is a mode of denoting the different letters of the alphabet by means of the fingers. There are two kinds in use; in the one only one hand being employed, in the other both: the latter is the more common. Writing is another important means in the education of deaf mutes, and is useful not only as enabling them to fix their lessons in their minds, but as being also the chief medium by which they can hold intercourse with strangers. Articulation is the teaching of the pupil to express his ideas in speech. In order to this, the sense of touch, as well as the eye, is employed. The pupil is made to notice the movements of the external organs of speech of the teacher, to feel with his own hand the vibrations which sound creates in the trachea, and also to feel those emissions of breath which are caused by the production of certain sounds. He is made to imitate such utterances, and, by means of patience and ingenuity on the part of the teacher, he will at length succeed in imitating what he observes and in expressing himself by speech. Reading on the lips, as it is called, is intended to

enable the deaf-mute to understand what is said to him by others, from observing the motion of their lips. The difficulties that attend this mode of instruction are very great, and so far as it is intended to make him comprehend all that is said to him, are insuperable. The system, however, has been attended with very considerable success. In 1867, the system of instruction was introduced into England by Mr. Van Praagh, and in 1871, an Association for the Oral Instruction of the Deaf and Dumb was founded, and a day school opened in Fitzroy Square. An International Congress to discuss the subject was held in Milan in September, 1880.

DEAN, *deen* (Lat., *decanus*).—In the Universities of Oxford and Cambridge, the dean is the officer appointed to superintend the chapel services, and to exercise some control over the students. In the university and King's Colleges, London, and in some of the Scotch universities, the dean is head or chief of a faculty, and is chosen for a limited period.

DEBATE, *de-bait* (Fr., *débat*), is a formal exchange of opinions between two or more persons, with the view of arriving at some definite conclusion. The subject is usually treated in a definite manner, and the speakers succeed each other according to certain rules. There is generally a chairman or president, whose business it is to see that order is maintained, and that the debate is properly conducted. Debate is, even in a greater degree than conversation (which *see*), calculated, if properly conducted, to improve the mental powers. It does so in so far as the heat and vehemence of debate are calculated to excite the faculties to greater activity than is usually the case in conversation. The effort to be sustained is also greater; the ideas have to be arranged systematically, the words well chosen, and the various forms of exposition, persuasion, and appeal have to be resorted to in order to gain our object. The practice of debate should be preceded not only by general cultivation of the mind, but also by much practice in writing. At first, at least, the substance of what is to be spoken on each occasion should, after reflection, be written down, not in the words designed to be uttered, but in brief heads, so that as little as possible may be left for the speaker to frame at the moment, except the expressions. In Parliament, and in all public deliberative assemblies, the right of free debate is claimed; and although possibly few members are much influenced in their voting by the speeches made, having mostly made up their minds beforehand, the freedom of debate permits an expression of opinions and the reasons for forming them which have a definite value. The great debating society of Oxford University, the Union, was founded in 1823, and many orators have been trained in it. Recently, debating societies have assumed the name of "Parliaments," the members imitating the styles and methods of procedure of the House of Commons.

DEBOUCHING, *de-boosh'-ing* (Fr., *dé-boucher*, from *de*, from, and *bouche*, the mouth), troops are said to debouch when they emerge from any wood or narrow pass into a plain or open country.

DEBRUISED, *de-broos'd*. In English heraldry, the representation of an animal, debarred of its natural freedom by having any of the ordinaries laid over it.

DÉBUT, *dai-bu'*, a French term which has been adopted as an English word. It properly means an opening or beginning, but it is more especially applied to the first appearance in public of an actor or actress. It is also applied to the first appearance at any particular theatre of an actor or actress. In either case the actor is called a *débütant*, and the actress a *débütante*.

DECADE, *dek'-ade*, a group of ten. During the French Revolutionary period, the new calendar adopted divided the year into twelve months of 30 days each, the remaining five days (or six in leap years) being considered as holidays and not numbered. Each month was divided into three decades, or weeks of ten days, each day being known by a Latin name, the tenth day, *decade*, being a day of rest.

DECACHORD, *dek'-a-kord*, a kind of guitar, with ten strings. It is larger than the common guitar.

DECADENCE, *de-kai'-dens* (Lat., *de*, from; *cadere*, to fall), a term applied in the Fine Arts to the decline of any school of painting, or the literature or architecture of any country, from the point at which it may be considered to have reached its summit of perfection.

DECAMERON, *dek-am'-e-ron* (Gr., *deka*, ten; *emera*, day), the name given by the Italian poet Boccaccio to his well-known collection of tales. They are supposed to be narrated by a party of guests during a ten days' visit to a villa in the country, while the plague raged in Florence in 1348. There are few works which have had an equal influence on literature with the Decameron. In England its effects were powerful. Chaucer adopted the notion of the frame in which he inclosed his tales from it (*see* **CANTERBURY TALES**); and, according to Burton, in his "Anatomy of Melancholy," one of the principal amusements of our ancestors was the reading of Boccaccio aloud. The description of the plague at Florence which introduces the tales is generally considered a masterpiece. A hundred stories are related by the guests, some very charming and pathetic, some grossly coarse and licentious, in the bad fashion of the times—many of the worst in that respect being adopted from the French. Like Shakespeare and other great writers, Boccaccio found the suggestion of incidents in foreign literature, and expanded and shaped them by his own genius. Of his creations, for so they may be called, the character of "the patient Griselda," has taken a definite place in the choicest European literature. In a recent critical notice, Mr. Hueffer says, "There are few great poets who have not in some way become indebted to the inexhaustible treasure of Boccaccio's creativeness." The German poet, Lessing, included a story from the Decameron in his great work, "Nathan the Wise," and among the English poets who have been indebted for suggestions to Boccaccio, are Chaucer, Lydgate, Dryden, Keats, and Tennyson. More than a hundred editions of the Decameron have been issued, and very high prices are given for the older copies. One edition was issued in 1573, under express Papal sanction, with the avowed purpose of removing the indecencies; but they were nearly all allowed to remain, only the naughty characters were changed from priests and monks into laymen.

DECEMBER, *de-sem'-ber* (Lat., *decem*, ten),

in the old Roman Calendar the year began with March, and what is now the twelfth month was the tenth, and hence received its name.

DECIMATION, *des-im-ai'-shun* (Lat., *decem*, ten).—In former times, when an army, or any division of an army, had mutinied against its commanding officer, and all had equally incurred the penalty of death, punishment was inflicted on the revolting troops by killing every tenth man, selected by lot, or taken out in the order in which they stood in the ranks. This mode of punishment was sometimes resorted to when a body of men had shown cowardice before the enemy. The Prussian general, Blücher, decimated a body of mutinous troops before the battle of Waterloo.

DECLAMATION, *dek-lam-ai'-shun* (Lat., *declamare*, to speak aloud, to declaim), is a discourse or speech made in public in the tone and manner of an oration. Among the Greeks, declamation was the art of speaking indifferently on all subjects, and on all sides of a question—of making a thing that was unjust appear just, and of triumphing over the best and soundest reasons. Among the Romans, as among us, it was generally restricted to certain exercises which scholars perform at school, to teach them to speak in public. In the colleges of the Jesuits declamations are little dramatic performances of few scenes, rehearsed by students, in order to train them for public speaking.

DECLENSION, *de-klen'-shun* (Lat., *declinatio*, from *declino*, I decline, bend, or deflect), in Grammar, denotes the various modifications of number and case to which nouns, pronouns, and adjectives are subjected, in order to express the relation which one thing bears to other things. To decline a noun, therefore, is to go through its several cases, singular and plural. In some languages, separate words, prepositions, are used; in others, the cases are expressed by changes in the termination of the noun. (See INFLECTION, CASE, NUMBER, NOUN.)

"DE CONSOLATIONE PHILOSOPHÆ."—The most famous work of Anicius Manlius Severinus Boethius (475 A.D.-525 A.D.), the Roman philosopher, consul, and political martyr of Rome. It was one of the most popular books of the Middle Ages. Alfred the Great translated it into Anglo-Saxon, and his instructor, Asser, and Grosseteste, bishop of Lincoln, wrote commentaries on it. Before the close of the 15th century, French, Italian, German, Spanish, and Greek versions had appeared. Chaucer's translation was one of the books printed by Caxton, and a later translation was made by John Lydgate. It has been stated that Queen Elizabeth also turned it into English. The original work is written in prose and verse alternately. The author describes the appearance to him of a dignified female whom he recognises as Philosophy, who offers him consolation for the sorrow he was labouring under. God, he is taught, is the highest good, and virtue is always ultimately rewarded. Free will and the fore-knowledge of God are also discussed.

DECORATED ENGLISH, *dek'-o-rai'-ted* (Lat., *decoro*, I adorn).—This style of Gothic architecture, also known as the Second, or Middle Pointed, prevailed in England during the 14th century, and was generally adopted in all ecclesiastical and public buildings erected in the

reigns of Richard I., Edward I., Edward II., and Edward III.; whence the term Edwardian has been assigned to it by Messrs. Garbett and Fergusson. It is considered to be the most perfect of all the different styles of Gothic architecture. It possesses all the peculiar forms and ornamentation of that which immediately preceded it; but there is a greater degree of elegance in the outlines of the former, and more richness in the latter, which is bold and natural in design and execution, without being too florid and elaborate, as in the succeeding period. Its chief characteristic features are the windows, the doorways, the capitals of the pillars, and the vaulting of the roofs. In the windows the lancet form assumes wider proportions, and, instead of consisting of one long narrow pointed light, or two or three of these at the utmost, grouped together and separated by piers, they are broader, and divided into five or more compartments by shafts or mullions. The head of the window is still pointed, the arcs forming it being described either from centres taken without the sides, or from centres taken in the sides themselves, with a radius equal to the span of the window. The tracery of the head consists of cusped circles combined with geometrical curves, which are also foiled or ornamented with cusps. The piers and arches of the doorways are richly ornamented, the former with light shafts surmounted with sculptured capitals, and the latter with deeply-cut mouldings. Both doors and windows have drip-stones above them, resting on corbels, which are frequently carved to resemble heads. Sometimes the moulding of the arch of a doorway is continued through the piers towards the ground, without any break at the impost from which the arch springs. Mouldings of every description are enriched with ball-flowers and foliage, and crockets are used to ornament the angular edges of pinnacles and canopies. The buttresses are bold and highly-finished, and flying buttresses are frequently used. The pillars are formed of groups of light and elegant shafts clustered together, and surmounted by capitals consisting of a bell swelling out in a convex form from the neck-moulding, and decorated with foliage and flowers closely copied from the natural forms. The vaulting of the roof is subdivided into patterns, by ribs in different directions interlacing each other, so as to form a kind of rectilinear tracery, and beautifully-carved bosses are fixed at the points of intersection.

DECOY, *de-ko-i'* (Ang.-Nor.), a plan by which ducks and other aquatic birds are enticed up a narrow channel from a river or lake. This channel usually terminates in a cover of network several yards in length. On either side of the channel the turf is kept smooth and in good order; this tempts the birds to leave the water, and they alight and begin to dress their plumage. While thus employed at some distance up the channel, the decoy-man and his dogs, who have been on the look-out, but carefully concealed, suddenly appear. The birds take to the water again, and are driven by the dogs into the network inclosure, where they are easily captured.

DECREMENT, or DECRESCENT, *de'-kre-ment, de-kres'-sant*, in Heraldry, indicates the moon. A moon decrecent is a half-moon with the horns turned to the left.

DEDUCTION, *de-duk'-shun* (Lat., *deduco*, I draw from or bring out of), a reasoning from

generals to particulars, the drawing of a particular truth from a general principle already known. It is opposed to induction, which consists in rising from particular truths to the determination of a general principle. The principle of deduction is that things which agree with the same thing agree with one another; of induction, that in the same substances, in the same circumstances, from the same causes, the same effects will follow. The mathematical and metaphysical sciences are founded on deduction; the physical sciences rest on induction.

DEER, HUNTING THE. The ancient customs and laws of "veneri," that noble science which our ancestors looked upon as one of the first accomplishments of the high-bred noble, and a knowledge of which was essential to his education, were formal and technical to a most absurd degree. A few of the terms betokening the different ages of the stag and hind are still retained, though somewhat altered. The young of either sex is called a calf. After a few months the male becomes distinguished by the growth of the bossets, or frontal protuberances on which the horns are afterwards developed, which, during the first year, are merely rounded knobs; from whence he takes the name of "knobber." In the second year they are longer and pointed, and are called dags, and the animal has now the name of "brocket." In the third year, the first, or *brow antler*, has made its appearance, and the deer becomes a "spayed." In the fourth the *bez antler* is added, and he is then termed a "staggard." He is a stag in the fifth year, when the third antler, or "royal," appears; and in the sixth, the commencement of the *sur royal*, or crown, is formed, when he takes the name of hart, and retains it through his life. At this time he is called a hart or stag of ten, probably because the branches, including the *sur royal*, frequently amount to that number. After the seventh year he is said to be *croched*, or *palmed*, or *crowned*, according to the number of branches, composing the *sur royal*. The female is a *calf* in the first year, a *brocket's sister* in the second, and in the third, and afterwards, a hind.

Deer-Stalking, stauk-ing (Sax., *stelcan*, to step slowly), a method of hunting the deer in such wild and precipitous countries as render the pursuit of them with dogs and horses impossible. It is a very favourite sport in Scotland, and it requires in the sportsman patience, perseverance, and exertion, being at the same time attended with no slight amount of danger, through the nature of the localities where the game is found. The localities of deer-stalking are principally confined to the highlands of Scotland. The stratagems of deer-stalkers to get within reach of their cautious prey are very varied. The extreme wariness of the red deer is such that it requires the utmost circumspection to advance towards them. When they are approached, it must always be done on the leeward side, as the quick scenting powers of the deer would soon apprise him of the presence of a sportsman who came on the windward side. A circuit of some miles is often necessary, in order that the stalkers may approach the deer undetected. After having arrived at the given point, it is often found necessary to gain another more completely concealed from the wary sentinel of the herd, one being always especially on the look-out to guard the whole against surprise. It is necessary, therefore, that the stalking party in these cases should lie down until the herd have turned into another situation. The best rifles are used in the sport, and the dogs employed are well bred and thoroughly trained to the work. Two or three couples are required, and they are mostly of the true, strong Grampian deer-dog breed, differing very slightly from the Scotch or Irish greyhound.

DEFILADING, de-fi-lai'-ding. (See FORTIFICATION.)

DEFILE, de-file' (Fr., *défiler*, to march in file), the name given to any narrow passage, whether it be a deep valley between two hills, a road between hedges, or even a street, along which troops can only march in column with a narrow front.

DEFINITION, def-e-nish'-un (Lat.), literally signifies the laying down a boundary, and is applied to the giving or explaining the meaning of a word by means of other words. A definition serves to show what notions are to be included, and, by inference, what to be rejected, in each word; and thus to afford, as far as possible, a precise understanding of its meaning. Definitions are usually distinguished into nominal and real; the former merely explaining the meaning of terms, and thus belonging to grammars and dictionaries; the latter explaining the nature of the thing itself, and coming within the province of logic. *Real* definitions are divided into essential and accidental; the former stating the primary and essentially constituent parts of that which is to be defined; the latter laying down what are regarded as circumstances or properties belonging to it. *Essential* definitions are again divided into physical and logical, the former enumerating such parts as are actually separable, the latter the separate ideas in the mind that go to complete the abstract notion represented by the word: namely, the genus and the difference. The conditions of a good definition are:—1, That it be adequate, neither too narrow, and thus only applicable to a part instead of a whole, nor too extensive, to include a whole instead of a part; 2, that it be clearer—i.e., consisting of ideas less complex, than the thing defined; and 3, that it be expressed in a suitable number of words, in opposition to prolixity, or excessive brevity.

DEGREE, de-gree' (Lat., *de*, of or concerning; *gradus*, a step; Fr., *dégré*), in universities, is a distinction conferred on the students or members of a university as a testimony of their proficiency in the arts or sciences, and entitling them to certain privileges. The origin of degrees, like many other points connected with the early history of universities, is involved in obscurity. That they existed at a very early period is unquestionable, but there is no reason to believe that they were coeval with the earliest universities. The oldest degrees were those in arts; and the term bachelor, which designates the lowest degree in each faculty, would seem to justify us in tracing the whole system of degrees to the university of Paris. The terms master and doctor were originally synonymous, and were commonly given to persons engaged in teaching, and not as titles conferred by authority after a prescribed course of study or a formal examination. Afterwards the term master was restricted to teachers of the liberal arts, and the title of doctor was assumed by the teachers of theology, law, and medicine. The masters and doctors afterwards adopted certain regulations, which were confirmed by public authority, to prevent unqualified persons from assuming their office; and hence these titles came to indicate a certain rank, and convey certain powers in the body scholastic. When this took place, and more especially when an initiatory stage was marked by the name of bachelor, the several

designations were called steps, or degrees (Lat., *gradus*). Every graduate had an equal right of teaching publicly in the university the subjects competent to his faculty up to the rank of his degree, and he even incurred an obligation to teach as a condition on which his degree was granted. Degrees are of two kinds:—1, Ordinary, or those which are conferred upon the members of a university after examination, and are thus certificates of attainment; and 2, Honorary, or those that are sometimes conferred upon persons of distinction without any examination. Degrees bear the same names, and, with some variation, the same relative academical rank, in most countries of Europe; but the mode of granting them, and their value at different universities as tokens of proficiency, vary greatly. In the English universities there are for arts the degrees of bachelor and master, and for the higher faculties bachelor and doctor. The degree of doctor in philosophy, granted by some of the foreign universities, is of modern introduction.—(See UNIVERSITIES, and the several articles on special universities.)

Lambeth Degrees.—In the reign of Henry VIII., sundry powers formerly belonging to the Pope were conferred upon the Archbishop of Canterbury, who was authorised to confer all the degrees taken in the universities of Oxford and Cambridge.

DEGREE, in Music, a name given to each line and space contained in the staff. There are nine degrees—viz., five lines and four spaces; when a greater number are required, short parallel lines, called ledger-lines, are added, either above or below the staff. A melody is said to proceed by degrees when it ascends or descends to the next line or space. *Degree*, *Theoretical*, the difference of position or elevation between any two notes. Theoretical degrees are of two kinds—viz., *conjunct* and *disjunct*; they are called *conjunct* when two notes are so situated as to form the interval of a *second*, and *disjunct* when they make a *third* or any greater interval.

DELIVERY, *de-liv'-er-e* (Fr., *delivrer*, to deliver), is the fifth and last of the several parts that go to make up the business and art of the orator, the others being invention, disposition, embellishment, and memory: invention, in order to find out what to say; disposition, in order to arrange in a proper manner; embellishment, to deck it in proper language; memory, to retain it; and delivery, to give it forth with dignity and grace. The ancient masters of oratory looked upon delivery as occupying a most important place in the art. If the end of all public speaking is to persuade—to convey our own ideas and emotions to those whom we address, then our voice, looks, and gestures interpret our ideas and emotions not less than words do—nay, the impression they make upon others is frequently much greater than any words can make. An expressive look, a passionate cry, often speak much more eloquently than any words; but gestures and tones must be the natural results of emotion, or by consummate artistic skill must appear to be so; for if they are evidently imitative and artificial, the whole effect is lost. Words are only arbitrary conventional symbols of our ideas; but tone and gesture are the language of nature. (See ELOCUTION.)

DELLA CRUSCANS, *del'-la kroos'-kans*, a name, taken from a famous academy at Florence (see CRUSCA), adopted by some English

versifiers residing in that city, in the latter part of the last century, who published a collection of verses with the title "The Florence Miscellany." The characteristics of the poems, songs, and sonnets were "namby-pambyism," affected sentiment, silliness, and mutual admiration. Contributions in a similar style soon appeared in England in the columns of two daily newspapers, *The World* and *The Oracle*. One of the writers from Florence, Mr. Merry, came to England, and the mania for writing in this manner spread. Besides Merry, a writer who adopted the name "Anna Matilda," William Parsons, and Mrs. Piozzi (who ought to have known better), appeared as Della Cruscan of the first water. The slashing critic Gifford set himself to demolish the "school." "The fever," he said "turned to a frenzy; Laura, Maud, Carlos, Orlando, Adelaide, and a thousand other nameless names, caught the infection; and from one end of the kingdom to another, all is nonsense and Della Crusca." In 1794 Gifford published his poetical satire "The Baviad," an imitation of the first satire of Persius; and in the following year appeared "The Mæviad," an imitation of Horace. His flagellation of the literary offenders was terrific, even for him, the most merciless of critics—of whom Southey said, "He had a heart full of kindness for all living creatures except authors, *them* he regarded as a fishmonger regards eels, or as Isaac Walton did slugs, worms, and frogs"—and Della Cruscan verses were no more. Sir Walter Scott says of Gifford, "His satire of the Baviad and Mæviad squashed at one blow a set of coxcombs who might have humbugged the world long enough."

DELPHIN CLASSICS, *del'-fin*, the name given to an edition of the Greek and Roman classics, prepared and commented upon by thirty-nine of the best scholars of the day, under the editorship of Bossuet and Huet, at the instigation of Louis XIV., for the benefit of his son the dauphin (*in usum Serenissimæ Delphini*); whence their name. The first edition consisted of 64 volumes, all of which, with the exception of Ovid, issued at Lyons, were published at Paris. Many of the particular works were reprinted in this country by Valpy, but are not highly esteemed by modern scholars.

DEMI, *dem'-e*, is a term derived from the French, signifying literally "half," and frequently used in the composition of English words; as *demigod*, or half-god.

In Heraldry, a term applied to the representation of only the upper or fore-half of an animal.

DEMI-HAQUE, *dem'-e-hak* (Fr.), the name of a small firearm in general use about the end of the 15th century. It was like a large pistol in form; but the butt was long and greatly curved.

DEMI-LUNE, *dem'-e-lune* (Fr., *demî*, half; *lune*, the moon). (See FORTIFICATION.)

DEMISEMIQUAVER, *dem'-i-sem'-i-qua'-ver*. In Music, half a semiquaver.

DEMONSTRATION, *dem-on-strai'-shun* (Lat., *demonstrare*, to show or point out), was used by the old English writers to denote any manner of showing either the connection of a conclusion with its premises or of a phenomenon and its asserted cause; but in philosophical language it now only means that process by which a result is shown to be a necessary consequence of the

premises from which it is asserted to follow, these premises being admitted either as matter of fact, of intuitive evidence, or of previous demonstration. In ordinary language, the term is often used as synonymous with proof. Demonstration is either direct or indirect: it is direct when the truth of the proposition is proved at once and directly, and indirect when it is proved by showing that the contradiction is impossible and absurd, which is usually termed *reductio ad absurdum*.

In Military Language, a display of troops in any particular direction, the object of which is to lead the enemy to imagine that some attack or movement of importance is meditated in that quarter, and induce the officer commanding to detach a force to watch the troops so employed—a measure which will tend to weaken his means of defence at that point against which any attack or manoeuvre is really directed.

DEMOTIC, or EUCHORIAL CHARACTERS, *de-mot'-ik* (Gr., *demotikos*, of the people), are terms applied by antiquaries to a certain kind of writing practised by the ancient Egyptians, and formed out of the ancient hieroglyphic, being a kind of current hand employed by the people generally, and differing from the hieratic, or that used by the priests. It is sometimes found on public monuments along with the ordinary hieroglyphic writing, as on the famous Rosetta stone. (See **HIEROGLYPHICS**.)

DENOMINATOR, *de-nom-e-nai'-tor* (from Lat., *denomino*, I name), the number of parts into which a unit is divided in any fraction. It is distinguished from the numerator, which specifies the number of parts of a certain kind, which are to be taken; thus, in the fraction $\frac{3}{4}$, 3 is the numerator, and 4 is the denominator.

DENOUEMENT, *da-noo'-mawn(g)* (Fr., *dénouer*, to untie or solve), is usually employed to denote the termination or catastrophe of a play or story, but more strictly it denotes the train of circumstances that bring about the catastrophe.

DENTILS, *den'-tils* (Latin *dens*, a tooth). Ornaments resembling teeth employed in the Ionic, Corinthian, and Composite orders of architecture.

DEPLOY, *de-ploy'* (Fr., *déployer*, to extend; Lat., *deplicare*, to unfold). When troops have been marching in column, and change the formation from column to line, they are said to deploy into line.

DEPONENT, *de-po'-nent* (Lat., *depono*, I lay down), is a term applied in Latin Grammar to certain verbs which have a passive form, but an active or neuter signification. They are so called because they have laid down, as it were, the signification proper to their form.

DERBY DAY, THE, *dar'-be*, the second day of the Epsom summer meeting, when the great race of the Derby stakes is run for. It is generally in the last week of May, and is always held on a Wednesday. The first Derby race was instituted by Lord Derby in 1780, and the stakes consist of fifty sovereigns each, with twenty-five forfeit. At the first Derby there were only 36 subscribers; but the race has since grown rapidly in fame and popularity, and Derby day is the great holiday for nearly all the inhabitants of London; the roads between the metropolis and Epsom are thronged from an early hour with every variety of vehicle, and the railway trains

are constantly leaving the stations with fresh cargoes of passengers for the Downs. The horses that run in the Derby must be three years old, and the course is a mile and a half in length. An immense amount of money, besides the stakes, is won and lost annually on the result.

DESCANT, *des'-kant* (Sp., *discante*), a term formerly used to express the art of composing in parts. By Hubald, Odo, Guido, and others, it was employed to signify concord and harmony of sounds. Descant is of three kinds—viz., *Plain descant*, which is synonymous with simple counterpoint; *Figurative descant*, which is less restrained, and includes the relief of discords; and *double descant*, which denotes that arrangement of the parts which will allow the treble or any high part to be converted into the bass, and *vice versa*. This term is also employed to imply a melodious display of notes extemporaneously played or sung to any given bass, as well as to denote the highest part in the score—viz., the soprano, or highest female voice.

DESIDERATUM, *de-zid-e-rai'-tum* (Lat., wished for), denotes something that is wanted to the completeness of a thing, or to promote the advancement of any object.

DESIGN, *de-zine'* (Lat., *designo*, I mark out), denotes, in a general sense, an intention, scheme, or plan of action, and in the Arts is applied to the idea or plan in the mind of the artist which he attempts to embody or represent in some visible form to the minds of others.

In Architecture, the design is a set of geometrical drawings drawn to a certain scale, representing the different sides, interior, and extent of any building, in such a manner that it can be erected by a builder in exact conformity with the original idea or conception of the architect. When the building is small, these are taken as working drawings, but if it be of great size and extent, working drawings are made from them for the use of the builder on a larger scale. They are intended to show the proportions and outline of the required building, and in them the principles of perspective, and light and shade, are disregarded entirely as regards the former, and almost entirely with respect to the latter. The various parts of architectural design for any building are respectively termed "plan," "elevation," "section," and "details." The plan shows the shape of the building and the area which it is to cover; it may be termed with propriety a horizontal section of the building; it shows the position of the walls of the rooms, and their respective thickness; the situation of rooms and passages with regard to each other, and indicates the apertures required for doors, windows, fire-places, staircases, &c. The elevations show the outline of the front, back, and sides of the building, and the windows, doors, projections of chimneys, and all the ornamentation that may be introduced. The sections are representations of the interior on a vertical plane, supposed to pass through the building from top to bottom, on any line indicated on the ground plan. They show the thickness of the floors, the height of rooms, the height and form of doors and fire-places, the profiles of cornices, domes, and skylights, as well as that of the roof; the direction of staircases, &c. Details, or parts at large, are representations of the horizontal and vertical sections of different rooms and parts of the building on a larger scale than that which is used for the general plan: they are also drawings of any embellishment that may be introduced, and are necessary to make their intended form intelligible to the workmen.

In the Fine Arts, design is the representation of any form or combination of objects, either in simple outline or in colour. It is applied indiscriminately to anything of this kind, from the sketch of any simple object or elementary form, that may be represented by a few strokes of the pencil, to the elaborate combinations required for the intricate pattern of a shawl or any other

similar production of the loom, as well as to the composition of a picture, or group of figures, or the form of any work of art, whether useful or ornamental.

Design, Schools of.—The Government schools of design that are established in various parts of the country, in connection with the Central Training School at South Kensington, which was originally opened at Somerset House in 1837, are intended to impart a knowledge of drawing and a taste for the fine arts to the great bulk of the people, and more particularly to those who are employed as artisans and designers in manufacturing establishments of all kinds. The schools of design are under the control of the Science and Art Department of the Committee of Council on Education, and the offices of the department, and the Central Training School for the United Kingdom, are in Cromwell Road, South Kensington. To this school both male and female students, that are duly qualified, are admitted, and partly maintained at the expense of the Government while passing through the prescribed course of study. When they are fully competent, they receive certificates, and are sent as teachers to local schools in connection with the central establishment. Teachers in these local schools receive grants from Government, in addition to their income, in proportion to the success of their pupils at the annual inspection and examination, when medals and prizes are awarded to the most deserving and efficient. A school of art may be founded in any locality in connection with the central school, provided that suitable premises can be obtained, at the public expense, the Government, in some cases, bearing as much as one-fourth of the total cost when new buildings are erected for the purpose. It is also requisite that there be public schools for the poor, in which the master recommended by the department can give instruction, or 500 poor children in the district, who must be taught, if it be desired, free of expense. Successful students at the local schools send their drawings for competition to the central school, when queen's prizes and medals are awarded to those who excel in any particular branch of art. Each school obtains drawings, works of art, or apparatus to the amount of £10 for every queen's prize or medal obtained by the pupils who have studied there. Every school of art may borrow books, drawings, and works of art from the museum and library at South Kensington; and any mechanics' or working man's institute can obtain assistance in the purchase of drawing models and casts for the purpose of instruction.

DETACHMENT, *de-tatsh'-ment* (Fr., *détacher*, to unfasten), the term applied to any body of troops, whether large or small, sent from an army, division, brigade, regiment, or company, for the performance of some special service.

DETONATION, *det-o-nai'-shun* (Lat., *detono*, I thunder), excessive rapidity of combustion accompanied by sound and light, as in the case of gun powder, percussion caps, &c.

DEUS EX MACHINA, *de'-us eks mai'-kin-a* (Lat., a god from the machine), is an expression borrowed from the ancient stage, it being usual among the ancient Greeks, when there was any difficulty in bringing the plot to a satisfactory conclusion, to have recourse to the assistance of a deity, who was let down in a machine for that purpose. In the modern drama, when a person or incident is arbitrarily introduced in order to bring about the dénouement, this is called a *deus ex machina*. The expression is also by analogy sometimes applied to the mode in which some philosophers attempt to account for facts which they cannot explain by any known law—viz., by the intervention of supernatural agency.

DEVICE, *de-vice'* (Mediæv. Lat., *divisa*, a design), the name given to any emblem selected by a person, family, or body of men, to serve as a mark of distinction. The device is often accompanied by a motto, and is similar in purpose

to the crest, or any charge in a coat-of-arms. Sometimes the term is applied to a motto only, as by Longfellow—"A banner with this strange device, 'Excelsior.'" It differed, however, from the family crest of the bearer, in having some characteristic in allusion to his name, character, or some enterprise in which he was implicated or about to engage.

DIADEM, *dî-a-dem* (Gr., *diadema*, a fillet), originally a band of silk or woollen, according to some authorities, invented by Bacchus, to relieve the headache produced by intoxication. It was probably imported into Greek costume from the East, and afterwards became the distinguishing ornament of royalty. The diadem of the Egyptian deities and kings bore the symbol of the sacred serpent. Among the Persians it was twined about the tiaras of the kings, and was purple and white. In the earliest times the diadem was very narrow; but broad diadems were introduced by the Persians, and adopted by Alexander the Great. The early Roman emperors abstained from the use of this ornament, to avoid giving offence to the people by calling up the remembrance of the kings. Diocletian was the first to re-introduce it, and Constantine the Great added new ornaments. The diadem was superseded by the Crown. (See CROWN.)

DIÆRESIS, *di-cr'-e-sis* (Gr., *diaireo*, I divide), in the dividing of a diphthong or of a contracted syllable into two syllables, and is usually denoted by two dots thus ("), over the last vowel; as avengèd, beloved. Sometimes the mark of diæresis is used to show that two vowels coming together do not form a diphthong; as, aërials; but the mark is rarely used in English words. In German it is very common.

DIAGRAM, *dî-ag-ram* (Gr., *diagramma*), a drawing delineated for the purpose of demonstrating the properties of any geometrical figure, such as a triangle, a circle, a square, &c.

DIALECT, *dî-a-lekt* (Gr., *dialegethai*, to converse), a term applied to a language which resembles another in its general features, but differs from it in the varieties or peculiar forms which that language assumes among the various tribes, or other local divisions of the people. The term is somewhat uncertain in its limits. Strictly, nearly all known languages may be divided into very few groups having common origins; but the variations are so considerable that they are practically divided languages; on the other hand, there are provincialisms, or *patois*, which exhibit peculiarities, but not important distinctions.

DIALECTICS, *dî-a-lek'-tik's* (Gr., *dialektikos*, from *dialegomai*, I discourse), is the old name for the art of reasoning and disputing justly. According to Socrates, dialectics were so called from being an inquiry pursued by persons who take councils together, separating the subjects considered according to their kinds. There were several systems of dialectics among the ancients. The dialectics of Plato are a kind of analysis to direct the human mind by dividing, defining, and bringing things to the first truth; which having reached, it applies itself to explain sensible things, but with a view to return to the first truth, where alone it can rest. The dialectics of Aristotle comprise the doctrine of simple words, delivered in his book of Predicaments; the doctrine of propositions, contained in his book, "De Interpretatione;" and that of the several

kinds of syllogism, in his books of *Analytics*, *Topics*, and *Elenchuses*. The dialectics of the Stoics appear to have been little more than a system of grammatical rules. (See *LOGIC*.)

DIALOGUE, *di'-al-og* (Gr.), is a conversation between two or more persons, usually upon a particular subject, and conducted with more formality than an ordinary conversation. The ancient philosophers were fond of conveying their instructions in this form, and some of their principal works that have come down to us are in dialogues. Plato is particularly distinguished for the beauty of his dialogues, which for richness and power of imagination, are unrivalled. Cicero and Lucian are also distinguished as writers of dialogues. In modern times we have the learned and elaborate dialogues of Erasmus, in Latin; besides whom, there are, among the Germans, Lessing, Mendelssohn, Herder, Jacobi, Schelling, &c.; Petrarch and Machiavelli, among the Italians; and Fénélon, Fontenelle, Malebranche, and Sarrasin, among the French. In England we have the "Divine Dialogues" of Henry Moor; the "Visions of Heaven and Hell," said to be Bunyan's; the "Philosophical Dialogues" of Berkeley; the dialogues on natural religion of Hume; the moral and political dialogues of Bishop Hurd; Lyttleton's "Dialogues of the Dead;" and many others. Still more recently have appeared Southey's "Colloquies on Society;" Walter Savage Landor's "Imaginary Conversations;" Help's "Friends in Council;" and Professor Wilson's "Notes Ambrosiane." Many writers have adopted this form in order to maintain their peculiar opinions; and it has the convenience that they are able to present the objections they intend to answer and demolish, and avoid contrary arguments which cannot be so treated, making the victory very easy. Writers of tracts and temperance publications, are especially addicted to this form of controversy.

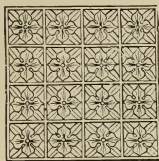
DIAMONDS, *di-a-monds*. The most remarkable diamonds with which we are acquainted, are the diamond mentioned by Tavernier, as belonging to the Great Mogul, which is said to have weighed 900 carats in the rough state; that belonging to the rajah of Mattan, weighing 367 carats; the diamond amongst the Russian crown jewels, 195 carats; the famous Pitt diamond, 136 carats. This diamond is, from its lustre and colour, considered the finest known. It was sold to the Duke of Orleans for £130,000, and afterwards decorated the hilt of the sword of state of Napoleon. It was taken by the Prussians at Waterloo, and now belongs to the Emperor of Germany. The Sanci diamond, formerly the property of the French kings, and purchased by a Russian nobleman in 1835 for £80,000, is one of the finest in Europe. The Kohinoor belonging to the queen, weighed 213 carats, but was badly cut. It was re-cut in 1852, and now weighs 123 carats; but is greatly improved in brilliancy, although lessened in size.

DIAMOND NECKLACE, THE, a famous piece of jewellery, made by a man named Boehmer, in Paris, about the years 1744-45. According to Madame Campan, it was originally intended for Madame Du Barry, the favourite of Louis XV. On the death of the king, in 1744, Du Barry was compelled to leave the court, and Boehmer was left with the necklace on his hands. It was a wonderful and costly piece of

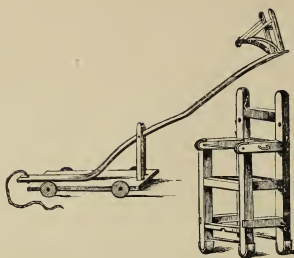
work, consisting of 500 diamonds. Its value was said to be 1,800,000 livres, or £80,000 sterling, and it was too expensive for any one to buy it. A woman named De Lamotte, who waited about the court, having heard of these circumstances, contrived to persuade the Cardinal Prince Louis de Rohan, a vain profligate man of great wealth, that Queen Marie Antoinette did not look upon him with disfavour. The vain Cardinal, readily believing this, was ready to do anything to retain the regard of the queen. He was persuaded by De Lamotte that Marie Antoinette was extremely anxious to possess the diamond necklace; but not having enough money then, she was willing to sign an agreement to purchase it, if the cardinal would become security. Rohan did consent, and signed the agreement, which was also apparently signed by the queen. On the first of February, 1786, the necklace was handed over to him and he took it to Versailles, the place where the queen had undertaken to send for it. All this time the cardinal had never seen the queen, although, by a stratagem of De Lamotte's he imagined that he had met her for a few moments at midnight in the park of Versailles, and all the messages, written and verbal, had come through the woman De Lamotte. On the day after he arrived at Versailles a man dressed in the uniform of the court valets came to his apartments, and took away the necklace, saying, as he did so, that it was "in the name of the queen." Almost immediately afterwards, De Lamotte, her husband and the sham valet, left Paris. The whole transaction had been a deception and a swindle. The verbal messages from the queen were all false, and the written ones forgeries by the sham valet, who was an adept at imitating handwriting; and the woman whom the cardinal had met in the park of Versailles was not the queen, but a handsome courtesan of Paris, named Gay d'Oliva, who had been hired by De Lamotte for the purpose. The plot was discovered by Boehmer, who, when he found that he was not paid when the period for the first instalment arrived, inquired at the court if the queen had received the necklace. This aroused suspicion, and inquiries being instituted, the cardinal and the persons associated in the plot were arrested and sent to the Bastille. The trial lasted nine months, and sentence was given on the 31st of May, 1786, when all were acquitted except Lamotte, who was branded on the shoulder with the letter V, for *voleuse*, thief. When the cardinal got out of the Bastille, at ten o'clock at night, large mobs hurraed round him out of spite to the court. It was the beginning of the Revolution. Seven years afterwards Marie Antoinette was led to execution, and the yelling and cursing mob taunted her with the scandal of the diamond necklace a few moments before she died.

DIAPASON, *di-a-pai'-zon* (Gr., *dia*, through; *pas*, all), an ancient Greek musical term for the interval of the octave. Modern musicians use the term to denote the range, or compass of the voice or of an instrument. It is also the name of a kind of rule by which certain instrument-makers determine the measures of the various parts of their instruments. Some of the stops in the organ are called by this appellation, because they extend through the entire instrument.

DIAPER WORK, OR DIAPERING, is a mode of decorating a surface by covering it with the constant repetition of a small flower,



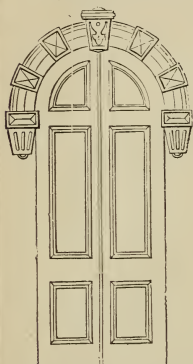
DIAPER WORK.



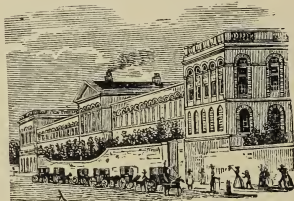
DUCKING STOOL.



DOUBLET.



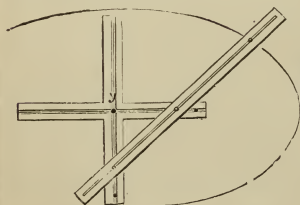
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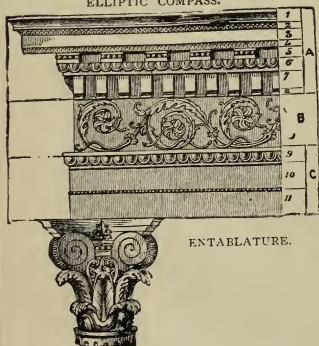
EARLY ENGLISH BRACKET.



ELLIPTIC COMPASS.



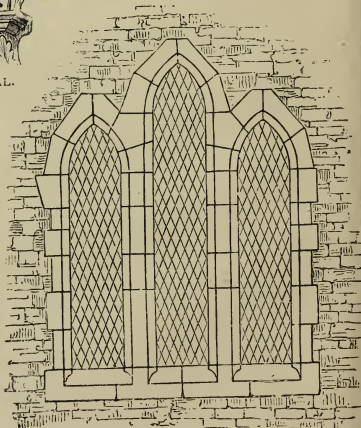
FINIAL.



ENTABLATURE.



FASCINE.



EARLY ENGLISH WINDOW.

leaf, or other ornament, either carved or painted. If carved, the flowers are entirely sunk into the work below the general surface. They are generally enclosed in a small square frame, and placed close to one another; but in some cases other arrangements are used, as in Canterbury cathedral. Diaper decoration was first introduced in the Early English style, in which it was sometimes employed to cover large spaces, as in Westminster Abbey and Chichester cathedral. It was also extensively used in the Decorated style. Diaper-work was only used as a painted ornament in the Perpendicular style, and very few specimens of it remain. Some portions of a pattern of beautiful flowing foliage are to be seen in the Lady chapel in Gloucester cathedral.

In Heraldry, fields and charges relieved by arabesque and geometrical patterns.

DIARY, *dî-a-re* (Lat., *diarium*, from *dies*, a day), is strictly a daily register or record of occurrences in which the writer has had a personal share, or which have at least in some way come under his own observation. To mercantile and professional men a diary is essential to record transactions and note engagements. The use of diaries has now become so common in this country that the manufacture of them forms an important branch of trade. They are usually prepared with a blank space for every day of the year, and vary in form and size according to the object they are more particularly intended to serve. Usually one book is intended to contain the events of a year. The publication of such diaries as those of Evelyn and Pepys has thrown much light upon the state of society at the time when the writers lived.

Evelyn's Diary.—John Evelyn, born at Wootton, in Surrey, in 1620, was an accomplished, thoughtful and practical writer, who had exceptional opportunities of observation, and whose high personal character ensured the friendship of the best men of his time. He wrote on politics, morals, the cultivation of trees, art, science, and commerce. In 1818, his Diary was first published under the editorial care of Mr. Bray. It extends over a long period, from 1641 to 1705; and is of high interest and value, as it refers to the times of Charles I., Cromwell, Charles II., James II., and William III. It has been described as "a necessary companion to the popular histories of our country—to Hume, Macaulay, and Lingard." To Hume and Lingard it was unknown; but Macaulay found in it a mine of authentic material. Sir Walter Scott was delighted with the book; and one of the high-class literary Reviews says, "Few, if any, similar publications of our own days more strongly attracted public attention for their first appearance, or are likely to retain a more permanent station in our national literature, than the Diary of Evelyn, a man the more highly honoured and valued as our acquaintance is permitted to become closer."

Pepys' Diary.—Samuel Pepys was Secretary to the Admiralty in the reign of Charles II. and James II., retiring from his official duties on the accession of William and Mary. He combined considerable scientific and artistic knowledge and literary and musical taste with a love of gossip and trivialities, which united to make him a most amusing companion; and his high character and official abilities gave him opportunities of acquaintance with royal and influential persons, and with the secret motives which actuated them. His attainments, and the estimation in which he was held, are proved by the fact that he held the office of President of the Royal Society for ten years. From 1659 to 1666 he kept a diary, written in a peculiar system of short-hand, and after his death, in 1703, it was deposited in the Bodleian Library, Oxford, where it remained undeciphered for 150 years, when Sir John Smith, subsequently rector of Baldock, Hertfordshire, succeeded in reading it. Selections from the diary were edited by Lord Braybrooke in 1825, and a more

copious and better prepared edition has been recently issued. Pepys appears to have exercised little reticence in committing to paper notices of the events of his daily life, and there is an amusing *naïveté* in his records of his domestic associations, his little vanities and amusements. It abounds with notices of the literature, drama, and social habits of the time; but there is also much valuable information respecting public events and Court and official intrigues. Lord Jeffrey, writing in the *Edinburgh Review*, said, "The author seems to have been possessed of the most extraordinary activity, and the most indiscriminating, insatiable, and miscellaneous curiosity that ever prompted the researches or supplied the pen of a daily chronicler." A critic in the *Athenæum* speaks of the diary as "the best book of its kind in the English language. Pepys is marvelously entertaining: the times and the man peep out in a thousand odd circumstances and amusing expressions. . . . The ablest picture of the age in which the writer lived, and a work of standard importance in English literature."

DIATONIC (Gr., *dia*, through, and *tonos*, a sound).—Of the three musical scales employed by the ancient Greeks, that which consisted, like the modern system, of intervals, of major tones and semitones. The diatonic has long been considered the most natural of these three scales. According to Aristoxenus, it was the first; and the other two—viz., the chromatic and enharmonic—were formed from the division of its intervals.

Diatonic Scale.—The natural scale, consisting of eight sounds and seven intervals; five of these intervals are called *tones*, and the remaining two *semitones*, which occur between the third and fourth and seventh and eighth. The diatonic scale is a gradual succession of sounds by tones and semitones, which may proceed either from acute to grave or *vice versa*, five whole tones and two semitones making a complete natural octave.

DIATRIBE, *dî-a-tribe* (Gr., a disputation), is generally a continued discourse or disputation, more particularly a bitter and violent attack, either written or spoken, on any subject.

DICE, *dise*, the plural of die. They are small cubes of ivory or bone, marked with black dots on their sides, marked from one to six upwards. Dice are placed in a small tubular box, shaken with the hand and then thrown out. When the dice are perfect in their form as cubes, there is no possibility of knowing what number may be thrown; but amongst swindling gamblers loaded dice are often used, which are so constructed as to turn up a certain number when required. The principal game played with dice is hazard. They are also employed in other games of chance, and two are used in the game of backgammon. Lotteries, raffles, and disputes, are also often settled by throwing a pair of dice. By the act 9 Geo. IV. c. 18, a duty of twenty shillings was imposed upon every pair of properly-made dice. This act was passed for the purpose of suppressing gambling, and since that time all dice have been stamped; and any person issuing dice without the Government stamp is liable to a penalty.

DICHORD, *dî-chord* (Gr., *dis*, double, and *chord*), the name given to the two-stringed lyre, the invention of which is ascribed to Mercury by Apollodorus, who gives us the following account:—"Mercury," says he, "walking on the banks of the Nile, happened to strike his foot against the shell of a tortoise, the flesh of which had been dried away by the sun, and nothing left of its contents but nerves. He was so pleased with the sound it produced, that he thence conceived the idea of a lyre, which he afterwards constructed in the form of a tortoise, and strung it with the dried sinews of animals."

DICK BEQUEST, *dik*, is a fund left by Mr. James Dick, of London, a native of Forres, in Morayshire, who amassed a considerable fortune in the West Indies, and at his death, in 1828, bequeathed the bulk of it, amounting to upwards of £100,000 (since increased to about £123,000), as a fund to be applied for the benefit of the parochial schoolmasters of the counties of Moray, Banff, and Aberdeen. The sum which each teacher receives is made to depend upon his qualifications and efficiency in teaching, and at present varies from about £20 to £40, the average being about £30. The sum annually distributed is about £4,000.

DICTIONARY, *dik-shun-ar-e* (Lat., *dictionarium*, from *dictio*, a saying), is a work which professes to give information on an entire subject, or an entire branch of a subject, under words or heads arranged in the order of the alphabet, of which the present work is an example. (See *ENCYCLOPÆDIA*.) In a more limited sense a dictionary is a collection of the words in one or more languages, arranged in alphabetical order, with their significations; as, an English dictionary, an English and French dictionary. A dictionary usually, also, gives an explanation of phrases; for when it is confined to single words, it is properly only a vocabulary. The Greek term *Lexicon* is sometimes used as equivalent to dictionary. The term *Thesaurus* (treasury) is also sometimes used. A glossary (Lat., *glossarium*) is a dictionary of unusual terms. A writer in the *Encyclopædia Britannica*, the Rev. P. A. Lyons, says, "Comparatively few languages possess dictionaries, and they are few in number compared to other books, probably much under 2 per cent.; and 5,000, not counting different editions, might be considered a very large collection. More than half belong to European languages, of which five surpass the rest in the number and variety of their dictionaries, namely, Greek, Latin, French, English, and German. In Asia, those excelling in this respect are Hebrew, Arabic, Persian, Sanskrit, Hindustani, Malay, Chinese, and Japanese; in Africa, Egyptian, Ethiopic, and Kaffre; in Armenia, Otomi, Aztec, Otomi, Guarani, Tapi, and Quichua."

DICTUM, *dik-tum* (Lat., something said), is properly applied to the arbitrament or award of a judge, but is frequently also used to denote a positive assertion.

DIDACTIC, *di-dak-tik* (Gr., *didasko*, I teach), signifies speech or writing adapted to teach the nature of things. Hence didactic poetry has for its object the communicating of instruction in the form of poetry. In one sense, almost every kind of poetry may be said to be more or less didactic; more particularly, however, it is applied to those cases in which the chief object of the poem is to communicate instruction on a particular subject; as the "Georgics" of Virgil, the "De Rerum Natura" of Lucretius, and the "Ars Poetica" of Horace. Though didactic poetry may sometimes attain an elevated and animated character, yet it cannot be denied that the more it becomes didactic, the less, of necessity, is it poetical; for the invention, freedom, and elevation of poetry must be in a great measure dropped. In didactic poems, generally, the information or instruction is accompanied with reflections, illustrations, &c.

DIDASCALIA, *di-das-kai'-le-a* (Gr., instruction, information), a term in use among the Greeks, and also till recently among most of the nations of modern Europe. It was sometimes applied to the representation of dramatic pieces, but more particularly to a written addition, in which information is given of the authors and contents of the plays, of the time, place, and success of the representation, &c. Many old authors have written didascalia, containing not merely theatrical information, but also critical notices of the plays.

DIES IRÆ, *di'-es i'-re* (Lat., day of wrath), is the name commonly given, from the opening words, to a celebrated Latin hymn, describing the final judgment of the world. It is characterized by remarkable force and beauty, combined with great smoothness of rhyme, and commences:—

Dies iræ, dies illa
Solvat sæculum in favilla,
Teste David cum Sibylla.

Day of wrath ! on that dread day
In ashes earth shall pass away,
Attest the King's, the Sybil's, lay.

The authorship of this beautiful hymn has been ascribed to various persons; but it most probably proceeded from the pen of Thomas of Celano, a Franciscan monk, who died about the year 1255. In the 14th century it was admitted into the service of the Church, and made a part of the Requiem, or mass for the souls of the dead. Several alterations were then made in the text; but that is believed to be the original reading which is found engraved on a marble tablet in the church of St. Francis at Mantua. This hymn has been frequently translated into German, and English versions have been written by Richard Crashaw, Lord Macaulay, Lord Lindsay, and others. Sir Walter Scott introduced a translation of the opening verses into the "Lay of the Last Minstrel."

DIFFERENCE, *dif'-fer-ens* (Lat., *differre*, to carry from each other), in Logic, is one of the predicables, and denotes that particular quality which distinguishes the subject under contemplation from all others, when looked at from the point of view in which we are regarding it. Logically, it is said to express the formal or distinguishing part of the essence of a species—that which distinguishes it from every other species contained under the same genus. The having only three sides is the difference or distinguishing feature which separates triangles from squares, polygons, and every other species of figure contained under the common genus rectilinear.

DIFFERENCES.—In Heraldry, there are marks of differences of two classes; the former of which is used to distinguish different branches of the same family from each other and from the chief of the family, when the original bearer of the coat is dead; and the latter to distinguish the coat-armour of sons from the paternal coat, while the father is still alive. Marks of difference, properly so called, belonging to the first class, consist of the addition of a chief or border to the original coat. Differences of the second class, properly called marks of cadency, consist of the addition of a certain figure to the paternal coat for each of the sons. The princes of the blood royal bear the label only on the royal arms, and are distinguished by bearing various emblems on the points of the label. The Prince of Wales,

however, bears a label argent simply, without any distinctive mark on the points.

DIFFUSION OF USEFUL KNOWLEDGE, SOCIETY FOR, was established by Lord Brougham, Mr. Charles Knight, and others, in 1827. It published many works of importance, but its proceedings were suspended in 1846.

DIGAMMA, *di-gam'-ma* (Gr., *dis*, twice, *gamma*, the letter gamma), was the name given to an old letter of the Greek alphabet, now obsolete, from its having the form of two gammas set one over the other, and resembling our F. It appears to have occupied the sixth place in that alphabet, and to have had the sound of *v*.

DIGIT, *di'-it* (Lat., *digitus*, finger), a finger; a term employed in arithmetic to denote one of the ten symbols or figures, 0, 1, 2, 3, &c. According to the original acceptation of the term, the first ten figures of any row were digits, but now, by common acceptation, the term is employed to denote the first ten figures used in reckoning number; thus, 20 is a number of two digits. By astronomers the term digit is used to signify the twelfth part of the diameter of the sun or moon; thus, in speaking of eclipses, they say that it was of seven or eight digits.

DIGRAPH, *di'-graph* (Gr., *dis*, twice; and *grapho*, I write), a union of two vowels of which only one is sounded; as in *head*, *breath*. It differs from a diphthong, which also consists of two vowels, in the sound produced in the latter case being different from that of either of the vowels taken separately.

DIGRESSION, *di-gres'-shun* (Latin, *digressio*), denotes literally a stepping out of the way or road; and hence, in literature, a departure or wandering from the main subject under consideration.

DILEMMA, *dil-em'-ma* (Gr., *dis*, twice, and *lemma*, an assumption—a twofold assumption), a species of argument in the form of a complex conditional syllogism. This argument was called by the Romans the *Syllogismus cornutus*; whence our phrase of "placing one on or between the horns of a dilemma." It is used to prove the absurdity or falsehood of some assertion. A dilemma must be so framed that one of the alternatives must be admitted; and each alternative must exactly apply. It ought also to be incapable of being retorted. When an affirmative is proved, the argument is said to be constructive; when a negative, it is called destructive. Of the constructive dilemma there are two sorts—the simple, which concludes categorically, and the complex, which has a disjunctive conclusion. There is only one kind of destructive dilemma. The Greek dialecticians prided themselves on exhibiting dilemmas which they alleged to be insoluble. Some of these examples were constructed with great dexterity, and the discovery of the fallacy is by no means easy. One of the most famous of them, known as the "sophism of Euathlus," is as follows:—Euathlus had received lessons from Protagoras the rhetorician, on condition that the fee should be paid when the pupil gained his first cause. Euathlus delaying to undertake any cause, Protagoras sues him, and argues in this way: "If I am successful, you must pay me in virtue of the sentence; if, unsuccessful, you must pay me in terms of our agreement, as then you will have gained your first cause." The pupil retorts: "If I am suc-

cessful, I am free by the sentence; if unsuccessful, I am free by the agreement."

DILETTANTE, *dil-e-tan'-te* (Ital., pl., *dilettanti*), is an admirer or lover of the fine arts, and is sometimes applied, by way of reproach, to one whose knowledge is mere affectation or pretence.

Dilettanti Society, is a society of noblemen and gentlemen, formed in London in 1734, and which has done much to foster the study of antique art in England. The society published, or aided in publishing, Stuart's "Athen's," Chandler's "Travels" in Greece and in Asia Minor, and several other finely illustrated works. In 1764 it fitted out an expedition to Greece, for the purpose of collecting details and drawings of ancient monuments, the result of which was published under the title of "Ionian Antiquities," in 1769. They have since fitted out several other expeditions, and given their results to the world in the same way. They have also issued "Specimens of Ancient Sculpture—Egyptian, Etruscan, Greek, and Roman," selected from different collections in Great Britain, in 2 vols., London, 1809-35. The last work published by them is entitled, "A Portfolio of Greek Architecture, or Drawing-book of Dilettanti," London, 1838.

DILIGENCE (Fr.), a heavy French travelling-coach, drawn by four horses. Before the introduction of railways, the diligence was much used in all parts of France. It is divided into three compartments—the *coupé*, or front, holding three travellers; the *intérieur*, holding six; and the *retonde*, entered from behind, holding eight. The driver's high seat in front is called the *banquette*; and the rest of the passengers are huddled indiscriminately among the luggage or under the tarpaulin which covers it. In general, a diligence weighs about five tons, and goes at the rate of six miles an hour.

DIMINISHED, *dim-in'-ishd* (from Lat., *di*, and *minuo*, I make less).—In Music, when an interval, by the application of a sharp or natural to the lower tone, or of a flat or natural to the upper, becomes contracted within its natural space or compass, it is said to be *diminished*: thus, by raising a minor seventh a minor semitone higher, a diminished seventh is produced.

DIMINUENDO, *di-min'-u-en-do*, in Music, referring to the lessening the power of a sound, but not affecting its time. It is nearly of the same meaning as *decrecendo*.

DIMINUTIVE, *dim-in'-u-tiv* (Lat., *diminutivum*, from *diminuo*, I lessen), is applied to a word the signification of which is lessened or diminished by some change effected upon its form. Though diminutives are chiefly confined to substantives, yet we occasionally find them among adjectives, pronouns, and even verbs. The diminutive does not always express littleness or smallness, but sometimes, also, tenderness, affection, contempt, &c. They are usually formed by the addition of a syllable at the end of a word. There is, perhaps, no language without diminutives; certainly, they are very common in most.

DIORAMA, *di-o-ram'-a* (Gr., *dia*, through; *orao*, I see), a method of painting and scenic exhibition invented by two French artists, Daguerre and Bouton. It does not possess all the advantages of a panorama, but produces a far greater degree of optical delusion. The peculiar effects of the diorama arise more particularly from the contrivances employed in exhibiting the painting. In the first place, the picture is viewed through a proscenium; the room in which the spectators are is almost in darkness; and the light, which is

admitted through coloured glass, falls upon the picture alone. It is principally used to illustrate architectural and interior views. By means of slides and shutters the light can be increased or diminished at will, and hence very pleasant effects can be represented; such as the ordinary change from daylight to sunshine, and from sunshine to cloudy weather or twilight. The diorama was first exhibited in Paris in 1822, and in London in 1823.

“DIPAVASMA, THE,” *dip-a-vas'-ma*, a Buddhist historical record in the Pali language, the most ancient historical work of the Ceylonese. It contains an account of the ecclesiastical history of the Buddhists; of the conversion of the Ceylonese to the Buddhist faith, and of the ancient history of Ceylon. It has been edited, with an English translation, by Dr. H. Oldenburg.

DIPHTHONG, *dif'-thong* (Gr., *diphthoggos*, a double sound), is a double vowel, or two vowels pronounced together or in rapid succession, so as to make only one syllable. Many double vowels, however, are not real diphthongs, because the sound of only one of the vowels is heard; as in *bread, field*.

DIPLOMA, *dip-lo'-ma* (Gr., from *diplos*, doubled or folded), originally denoted any charter, letter, or other composition, written on parchment and folded. Afterwards it came to be applied to a letter or writing of a sovereign, conferring some title or dignity, or granting some privilege or immunity. The term is now commonly applied to a letter or instrument duly signed and given by a university or other learned society, in proof of the holder having a certain degree, or licensing him to practise a certain art. The wholesale fraudulent sale of diplomas by a Dr. Buchanan, dean of the American University of Philadelphia, and others, was detected in 1880. He attempted escape by a sham suicide, but was captured, prosecuted, and imprisoned.

DIPLOMATICS, *dip-lo-mat'-tiks*, the science of *diplomas*—of deciphering ancient writings, and judging of their character, value, date, &c. The term is now nearly obsolete. (See PALEOGRAPHY.)

DIPTYCH, *dip'-tik* (Gr., *diptuchon*, folded together), properly signifies something folded, and was originally used in the same sense as diploma. Diptychs, however, were usually tablets of metal, ivory, or wood, of equal size, fastened together by a hinge or ring, and were frequently beautifully carved on the outside. They were early in use among the Greeks and Romans, and were also common in the early Christian Church, where they were used as registers. Portions of these were read during the celebration of the mass; and it was also the custom in some churches for the deacon to rehearse from these books the names of eminent bishops, saints, or martyrs, before they made oblation for the dead.

“DIRECTORY,” a book containing alphabetical lists of persons resident in any particular town or other locality. It is generally divided into three principal sections—streets and roads, names, and professions or trades. The first London Directory was published in 1677, by Lee and Major, under the title of “A Collection of the Names of Merchants,” &c. The first bearing the name was published in 1734, with the title, “Kent’s Directory; or, a List of the Principal Traders in London.” The “Post Office Direc-

tory” first appeared in 1800, and was so named because the letter-carriers assisted to obtain the information. It is now the property of a private firm, who issue also Directories for nearly every county and the most important towns in the United Kingdom.

DIRGE, *durj*, an abbreviation of *dirige*, the first word of the *antiphona* “Dirige Domine Deus,” chanted in the funeral service of the Roman Catholic church. It is now used to express a solemn and mournful composition performed at funerals.

DIRK, *durk* (Scot., *durk*), the name of a short dagger or poniard, now applied to the little weapon worn by cadets in the royal navy. It appears to be derived from an old English verb, *dirke*, to stab, which is now obsolete.

DISCIPLE, *dis-i'-pl* (Lat., *discipulus*, from *disco*, I learn), strictly means one who learns anything from another; and hence the followers of any teacher, philosopher, or head of a sect, came to be called his disciples. In this sense it is sometimes used in Scripture; as when we read of the disciples of Moses, of John, of Christ. Generally, however, it is used with reference to the last of these—the followers of Jesus. Sometimes all who received the doctrines of Christ are called disciples; but, in a more limited sense, it is applied to the seventy or seventy-two persons that were his more immediate followers and attendants. Sometimes it is used as synonymous with apostles, and applied to the twelve.

DISCORDS, *dis'-kords* (Fr., *discorde*, a dissonant or inharmonious combination of sounds, so called in contradistinction to *concord*). *Discords* are sometimes intentionally introduced into music, not for themselves alone, but to set off the *concorde* by contrast and opposition.

DISCOURSE, *dis-korse'* (Lat., *discursus*, from *dis*, and *curro*, I run), in Logic, is an operation of the mind, whereby it passes or proceeds from one thing to another—from a thing known to one unknown, and is thus synonymous with reasoning (which *see*). In Rhetoric, it is used in the same sense as an oration. It is also sometimes applied to the familiar talk or conversation of an individual.

DISCUS, *dis'-kus* (Gr., *diskos*), a quoit used by the ancients. It was generally a heavy circular piece of iron, sometimes perforated in the middle. The discus was not thrown at a mark, but the players endeavoured who could throw it the farthest. The practice of throwing the discus is mentioned by Homer as being one of the sports at the funeral of Patroclus. In the well-known statue of Discobolus throwing the discus, in the British Museum, one of the methods of using it may be seen.

DISJUNCTIVE CONJUNCTION. (See CONJUNCTION.)

DISJUNCTIVE PROPOSITION, *dis-junk'-tiv* (from Lat., *dis*, and *jungo*, I join), in Logic, is a proposition compounded of two or more categorical propositions, so stated as to imply that one of them must be true. In such a case we proceed either by asserting the truth of one member of the division, and thence inferring the falsity of all the rest, which is called the *modus ponens*; or else by asserting the falsity of all the members but one, and hence inferring the

truth of that one, which is called the *modus tollens*.

DISPATCHES, *dis-patsh'-ez* (from Fr., *dépêcher*, to send away), a term applied to letters, or packets of letters, sent with expedition (or dispatched) by messengers express. It is mostly used when referring to a letter or letters on some affair of state or public concern. Papers containing information sent by public officers to the government on public business are always called dispatches.

DISPENSARY, *dis-pen'-sa-re* (Lat., *dispensarium*, from *dispendo*, I distribute), denotes properly the shop or place in which medicines are made up and distributed, but is now more commonly applied to a charitable institution for supplying medical advice and medicines gratuitously to the poor.

DISPONDEE, *dis-pon'-de* (Lat., *di* and *spondeo*), in Greek and Latin poetry is a double spondee, or a foot consisting of four long syllables.

DISPOSITION, *dis-po-zish'-un* (Lat., *dispositio*), in Logic, is that operation of the mind whereby we put the ideas, propositions, or arguments which we have formed concerning a subject, in the order fittest to gain a clear knowledge of it, to retain it in the memory, or to explain it to others. In Rhetoric, it is the due placing or ranging the several parts of a speech or discourse. The logician is tied down to a certain prescribed form in his mode of reasoning, the rhetorician adopts that mode that seems most convenient for him.

DISPUTATION, *dis-pu-tai'-shun* (Lat., *dis*, and *puto*, I think), is a discussion or contest, either by word or writing, on some unsettled question. (See **DEBATE**.) In the Middle Ages, students used to travel from city to city, inviting the learned men to public disputation on theological or philosophical theses.

DISQUISITION, *dis-kwe-zish'-un* (Lat., *dis*, and *quæro*, I seek), formal or systematic inquiry into the nature, kinds, or circumstances of any problem, question, or topic, by arguments, or by discussion of the facts and circumstances, in order to elucidate the truth, or to obtain clear notions regarding it.

DISSOLVING VIEWS, *diz-zol'-ving* (Lat., *dissolvo*), pictures painted upon glass, and exhibited by means of magic lanterns of improved construction and great size. After one picture has been exhibited, by removing the focus, or lessening the light, the effect is rendered less distinct; then by means of another magic lantern, or a lens, a fresh slide is gradually introduced, so that one picture blends with another almost unconsciously to the spectator.

DISSONANCE, *dis'-so-nans* (Fr.), in Music, a term used to denote the effect produced from the union of two sounds not in accordance with each other. Thirds and sixths were anciently considered as dissonances; in fact, every chord except the perfect concord is dissonant. Formerly there was an unlimited number of dissonances, but they are at present reduced to a comparatively small number. (See **HARMONY**.)

DISSYLLABLE, *dis'-sil-la-bl* (Gr., *dissyllabos*), a word of two syllables; as, *goodness*, *beauty*.

DISTAFF, *dis'-taf*. The distaff, as represented in antique art, was made of a cane stick, the top of which was slit, and the portions bent downwards, forming a receptacle for the flax or wool. The distaff was dedicated to Pallas, and the Fates were represented as spinning the thread of life from a distaff.

DISTANCE, *dis'-tans* (Lat., *distare*, in Painting, an expression used to denote the utmost extent to which the power of vision can reach, or the limit of view. Extreme distance is the visible horizon of the observer, in which the land and sky appear to meet; and middle distance is that part which lies midway between the distance of the picture and the foreground.

In Horse-racing, a length of 240 yards from the winning-post. At this point is a post called the distance-post. When a race is run, a man is stationed at the distance-post, and is provided with a small red flag, with which he can communicate with another man at the winning-post. When the winner passes, the man at the winning-post lowers his flag, and the man at the distance-post lowers his flag at the same time. If any horse has not then arrived at the distance-post, he is said to be "distanced," and incurs penalties accordingly.

DISTEMPER, *dis-tem'-per* (Fr., *détrempe*), in Painting, the name given to the colouring matter used in scene-painting, and for printing and staining paper-hangings. A mixture is made of whitening and coarse size, in the proportion of ten parts of the former to one of the latter, to which the required colour is added when it has been diluted with a little water, and brought to a consistency resembling cream. Distemper colours dry very rapidly, and should be slightly warmed before they are used. This method is sometimes used in colouring the walls of houses externally, and the interior of rooms.

DISTICH, *dis'-tik* (Gr., *distichon*, consisting of two rows), a couple of verses or poetic lines making complete sense. The term is principally applied to the hexameters and pentameters used among the Romans, especially by Ovid and Catullus. Among the Greeks and Romans the distich was used as a vehicle for the expression of definite sentiments, and especially for epigram. Goethe and Schiller, together with other great poets of Germany, have shown a great predilection for the distich.

Disticha, a collection of moral maxims in Latin which were very popular in the Middle Ages.

DISTORTION, *dis-tor'-shun*, in Photography, a term applied to the unnatural increase in size of certain parts of the picture. Distortion arises from several causes: such as using too small a lens; not using a sufficiently large diaphragm or stop; by approaching the object too closely; or by the lens itself being improperly connected.

DISTRIBUTION, *dis-trib'-u'-shun* (Lat., *distribuo*, I distribute), is the placing particular things in the places or compartments which have been already prepared to receive them. In Logic, a term is said to be distributed when it is employed in its full extent, so as to comprehend everything to which it is applicable; to be spread, as it were, over the whole class, and applied to each object individually, not to all collectively. When a common term denotes fewer than all the objects of a class, it is said to be taken particularly, or to be undistributed.

DITCH, in Fortification, a broad and deep

trench surrounding the rampart, which is generally formed of earth taken out of the ditch. The sides are generally secured with revetments of masonry. The side immediately below the parapet is called the scarp of the ditch, and the side opposite to the scarp is called the counter scarp.

DITHYRAMBUS, *dith-e-ram'-bus* (Gr.), a surname of Bacchus. In ancient verse, the term was used to designate a species of lyric poetry, more particularly cultivated at Athens. It was distinguished by its wildness and enthusiasm, but in later years it degenerated into bombast. Originally the dithyrambus was a hymn sung in honour of the deity after which it was named. It was generally sung by a chorus of fifty, who danced in a circle as they sang round the blazing altar of the god. The song was at first rudely accompanied by flute-music, but afterwards Arion invented a regular choral form for it.

DITTO, *dit'-to* (Lat., *dictus*, said), a term in common use, signifying aforesaid, or the same thing. The derivation of the term is more directly from the Italian *detto*; it is used to save repetition, and is often contracted to the form *do*.

DITTY, *dit'-te*, a term derived from the Latin *dictum*. It was originally spelt dittie, and implied in its primitive sense, a saying or sentence. In modern times, however, it is applied to a lay or song.

DIVAN, *div-an'*, a Persian word, originally signifying a register of names and accounts, but more generally employed to designate a court of justice or supreme judicial tribunal. The word, however, is very variously applied. Among the Persians, a collection of poems or songs by one and the same author is called a divan. The state or reception rooms in palaces and the private houses of the rich citizens of Constantinople are also called divans. Among Europeans the term is more generally applied to a kind of sofa, probably from such being used in the divans of the Orientals.

DIVEL-ON-THE-NECK, *div'-el*, an instrument of torture, employed against the Lollards. Fox, in his "Acts and Monuments," thus describes it:—"Certain strait irons, called the divel-on-his-neck, being after an horrible sort devised, straitening and winching in the neck of a man with his legs together, in such sort as the more he stirreth in it the straiter it presseth him, so that within three or four hours it breaketh and crusheth a man's back and body in pieces."

"**DIVERSIONS OF PURLEY**," a collection of grammatical essays by John Horne Tooke, a prominent person in the political history of the latter part of the 19th century. The book, which is of considerable value as an authority on etymology and grammar, was named from the place of residence of the author, Purley, near Wandsworth, Surrey.

DIVERTIMENTO, *di-ver-te men'-to* (Ital.), a short, light, pleasing composition, vocal or instrumental, written in a style calculated to engage the popular ear. The word is sometimes written *divertissement*, and applied to a ballet introduced between the acts of an opera.

"**DIVINA COMMEDIA**," OR **DIVINE COMEDY**, *de-ve'-na kom-mai'-de-a*, the great poem composed in the early part of the 13th century by Dante Alighieri, and one of the most re-

markable productions of the human mind. It describes a vision in which the author visits in succession Hell, Purgatory, and Paradise; and is divided into three books bearing those titles. The whole poem consists of 300 cantos. It is described by a recent writer as "a work which holds an eternal place in the heart, the intellect, and the conscience of the world, and which numbers now more students and admirers than in any preceding time." In the vision, Dante is conducted through Hell and Purgatory by the poet Virgil (representing human wisdom), who has been sent to his aid by Beatrice (representing heavenly wisdom), she herself having been despatched to Virgil with this commission by Lucia (enlightening grace), who had been sent by a gentle lady (Divine mercy) to the aid of Dante, lost in a dark wood in the middle of his life's journey, and terrified by the aspect of threatening wild beasts. Hell (*L'Inferno*) is described as a vast abyss, opening directly under Mount Zion. The sides are not smooth, but broken by terraces, each of which extends round the whole circle, and is separated from those above and below it, so that entrance and exit are impossible except to those who, like Dante, are divinely guarded. The first circle is the "Limbo" of the old writers, in which are the whole of the unbaptised and those who lived before the birth of Christ. All the other circles exhibit the punishment of sinners, the sins deepening in guiltiness as the pit descends, and the punishment growing more horrible as the circles decrease in size. The description given by the poet of the condemned sinners, including a large number of historical characters, and of the tortures they endure, are appalling. There are rivers of blood, horrible odours, a lake of pitch, troops of wretched spirits wheeled about in the air, others plunged in ice, others imprisoned in trees. Wails of despair, cries of agony, strike upon the ear. Many of the condemned relate in brief but terrible sentences the story of their crimes; and there are episodes of great pathos and power. At the bottom of the abyss is Satan, a monster with three heads, champing a sinner in each bloody mouth. It is not surprising that Judas Iscariot should be one of these, but certainly remarkable that the Romans Brutus and Cassius should be the others. By climbing up the body of Satan, Dante and Virgil emerge at the antipodes of Mount Zion, the Mount of Purgatory, a lofty cone rising on an island in the Southern Ocean. Around this cone are another succession of terraces where are the souls of those who have been guilty of the seven mortal sins—pride, envy, anger, sloth, avarice, gluttony, and lust. On the summit of the mountain, the poet is met by Beatrice, who ascends to heaven, taking Dante with her, and visiting in succession the moon, the planets Mercury and Venus, the sun, and then Mars, Jupiter, and Saturn. Hence they mount to the sphere of the fixed stars, and finally to heaven itself, where, after a vision of Christ and the Virgin, the poet has a glimpse of the Creator, and the poem closes. It is difficult even to indicate vaguely, the poetical power, the intense energy, the vast learning and knowledge of contemporary history exhibited in this wonderful poem. Commentators have laboured to illustrate it and explain the allusions; and from it might almost be constructed a history of Southern Europe in the 13th century. It is written in the *terza rima*, a metre admirably adapted to the grave and dignified manner of the poet, and flexible enough to display the various

emotions excited. More than 300 editions have been printed, the earliest by Numeister, at Fuligno, in 1472. A large number of manuscript copies exist. Dante himself styled the poem a Comedy, because he said, "Comedy begins with the asperity of a subject, and ends prosperously," and is written in the common, or "vulgar," tongue, as the poem is. The prefix "Divine" was afterwards given, but not apparently by the author; for the first printed edition so named is supposed to have been printed at Venice in 1516. The earliest of all the commentaries was that by Jacopo, Dante's son, written in 1328. In 1373 the republic of Florence established a professorship of Dante, and Boccaccio, the author of the "Decameron," was the first lecturer. The standard English translation of the whole poem is Carey's, and Wright's is also good; but others, especially Dr. J. A. Carlyle and Mr. W. M. Rossetti, have translated the first division "L'Inferno." The poet Longfellow published a full translation in America. In Germany, several excellent translations have been issued, one of the best, if not quite the best, being by the late King John of Saxony, who assumed the name "Philaethes."

DIVINATION, *div-in-ai'-shun* (Lat., *divinatio*), a term applied generally to the various arts used in all ages for the discovery of things, secret or future, in a supernatural way. The feeling among ancient nations was, that if gods really existed, they cared for men; and if they cared for men, it was only natural that they should send them signs of their will. Among the ancient Greeks and Romans, divination was practised with great enthusiasm. In the most trivial matters of every-day life they saw something that had reference to the future, or destiny, while their auguries and oracles formed the higher class of divination. The different systems of divination employed by the ancients are very numerous, and are described under various headings. (See AUGURIES, ORDEAL, OMEN.)

DIVINING-ROD, *div-i'-ning* (Lat., *divino*, I divine), a hazel twig cut in the form of a Y, by the aid of which certain persons, called *dowzers*, pretend to be able to discover water or mineral veins. The rod is held in a peculiar manner, and the dowser wags backwards and forwards over the ground to be tried. As soon as he crosses or approaches a metallic vein or aqueous spring, the twig runs towards it with a slow rotatory motion. The superstition has not yet quite died out in Devon and Cornwall. Readers of Scott's novel "The Antiquary," will remember the use he made of the popular belief.

DIVISION, *di-vizh'-on*, in Logic, is the separating a thing into several parts or ideas. Logicians distinguish three kinds of division:—1, When the genus or kind is divided by its species or differences; 2, when a thing is divided into several classes by opposite accidents; and 3, when the accidents themselves are divided according to the subjects in which they inhere.

DO, *do*, the name of the first note of the natural major diatonic scale. It has been long since substituted for that of *ut*, which was employed by Guido, the latter monosyllable being rejected as too hard and rough.

DOCTOR, *dok'-tor* (Lat., *doctor*, from *doceo*, I teach), properly signifies a teacher or instructor, one so skilled in his particular art or science as to

be able to communicate it to others. It is generally believed to have been first adopted as a distinctive title in the 12th century, and to have originated with the university of Bologna. The university of Paris followed immediately after, and, in 1145, conferred the degree of doctor in divinity on Peter Lombard. In England the degree of doctor was not introduced into the universities till the reign of John or Henry III. In modern times the title of doctor forms generally the highest degree in the faculties of theology, law, and medicine. In Germany, the title of doctor in philosophy has been substituted for the older title of master, which is still retained in this country. The universities of Oxford and Cambridge also confer the degree of doctor in music. As to the conditions and qualifications necessary to obtain this degree, see the accounts of the different universities in other parts of this work. Some of the American colleges confer the degree on almost anybody who will pay certain fees, and the title so obtained is of course of little value. In common speech, every medical man is known as "the doctor."

Doctor in Music, a musician upon whom the degree of doctor has been conferred by some university. By the qualifications formerly required of a candidate for either a doctor's or a bachelor's degree, it is clearly shown that music was considered a purely speculative science. No importance was attributed to skill in composition. By the more modern statutes, however, higher qualifications are rendered necessary; the candidate being required by them to submit for the inspection of the musical professor a composition in eight vocal parts, with instrumental accompaniments.

DOCTRINAIRE, *dok-trin-airé* (Fr.), denotes properly a man who is the supporter of a particular doctrine, or who is a man of doctrines. In general, it is applied to those who hold pedantic or unpractical views. In this sense it was applied in France, during the Restoration, by the reactionary court party, to a faction of the parliamentary opposition, who wished to carry out rational and scientific doctrines in politics against all arbitrary measures. This party went out from the salons of the Duc de Broglie, and had, as its leader in the chamber, Royer Collard, being supported in the press and before the public by Guizot. Their watchword was a constitution on the basis of the charter of Louis XVIII. After the revolution of 1830, Guizot, Broglie, and others of this party, became ministers and supporters of the government.

DOCTRINE, *dok'-trin* (Lat., *doctrina*, from *doceo*, I teach), denotes in general anything that is taught either as a matter of faith or practice; and hence the term has come to be applied to a variety of opinions that have been adopted and inculcated in religion, philosophy, &c.

DOG-DAYS. The rising or setting of Sirius, "the dog-star," with the sun was long erroneously supposed to be the cause of excessive heat. The so called "dog-days" begin on July 3 and end August 11.

DOGGEREL, *dof'-ger-el* (Ang.-Sax.), a term applied to mean, paltry, loose, and irregular rhymes, where the jingle at the end of each line is the only thing preserved in common with verse or poetry.

DOGGET'S COAT AND BADGE, *dof'-gets*, a prize contended for at a rowing-match upon the Thames on the 1st of August every year. Thomas Dogget, an actor at the theatre

in Drury Lane, desirous of commemorating the accession to the throne of George I. (August 1, 1715), left a bequest of a waterman's coat and badge to be rowed for annually. The competitors are six young watermen whose apprenticeships have expired within the year. The locality chosen for the race is from London Bridge to the Old Swan at Chelsea. The umpire is usually the barge-master of the Fishmongers' company, and the rowers are each placed singly in a boat provided with sculls.

DOGMA, *dog'-ma* (Gr., an opinion or notion), originally meant an opinion given out as a positive assertion, not requiring to be supported by any arguments; and hence a settled opinion, a principle, maxim, or tenet, particularly in theology or philosophy. In English, the term is frequently applied in a depreciatory manner to assertions advanced without proof. In a theological sense, it is applied to the doctrines of Christianity advanced not for discussion but for belief; hence dogmatic theology is that branch of divinity that systematically arranges and expounds the various doctrines of Christianity, as distinguished from scholastic theology, which deals with the arguments by which the truth of these doctrines may be supported. The first attempt to furnish a complete and coherent system of Christian dogmas was made by Origen in the 3rd century, in his work "*De Principiis*." He was followed, in the 4th century, by Augustine, with his work, "*De Doctrina Christiana*." The first, however, to treat this subject systematically was John Damascenus, who flourished in the 8th century. In the Middle Ages, ingenious examinations of the Christian doctrines were made by the schoolmen; but agitating, as they did, subtle questions of little practical importance, they loaded the science with useless refinements. Among the Protestant reformers, Melancthon was the first who wrote a compendium of the Christian doctrine, which is still justly esteemed. The spread of the critical philosophy of Kant gave a fresh stimulus to this branch of theology in Germany, and since that time it has been extensively cultivated in that country. Among the most important works on this subject are that of J. Peter Lange, "*Philosophische Dogmatik*" (Heidel, 1849-51), and Neander's "*History of Dogmas*" (1856). Several Roman Catholic theologians in Germany have recently distinguished themselves in this field, some inclining to liberal notions, and others supporting the rules of the Church. It is worthy of remark that Nitsch and Beck have, in recent times, treated Christian dogmatics and morality in combination, the custom having been for the last two centuries to discuss them separately.

DOILEY, *doyl'-le* (Dutch, *dwaele*, a towel), a small ornamental napkin placed beneath wineglasses at dessert.

DOLCE, OR **DOL**, *dol'-chai* (Ital., sweet or tender), a term in Music, used to denote that the passage over which it is written is to be played in a soft, smooth, and delicate manner.

DOLES AT FUNERALS, *doles*, an ancient custom of making gifts to the poor at funerals, which was in use till comparatively modern times. It was continued until long after praying for the dead had been abandoned at the Reformation. The custom probably arose from the opinion that such gifts did give repose to the soul of the deceased. The practice of giving doles at funerals

was not only common in England, but also in Wales, Scotland, and Ireland. By some the custom is traced back to the sin-offering amongst the ancient Hebrews.

DOLL, *doll* (Welsh, *delor*), a toy shaped like the figure of an infant, used as a toy by female children, whose love of dolls not only cultivates their affections, but teaches them to exercise their ingenuity in making clothes for and dressing them. The management of a doll is therefore a part of the education of girls, whose natural instincts and love of nursing are exhibited from their tenderest age. The use of these little effigies dates from the most remote period, and is common to all countries. They were portions of the playthings of the children of the ancient Romans and Persians; and in the female children of patrician Europeans, or the savage offspring of the Australian aborigines, the love of the imitation of the cares of maternity is equally implanted. The majority of the dolls imported into Great Britain come from the Netherlands. The old Dutch doll had a well-made face, a gaudy dress, and thin wooden legs. Great improvements have recently taken place in the manufacture of dolls, and large quantities are made in France, on the Rhine, and in Switzerland, as well as in England; and many hundred women are employed in their construction; some of them carve the faces, others the figures, others the limbs; another class of operatives paint them, and another prepare and put on the dresses. Wires and machinery have been introduced into the bodies of the dolls, that make them open and shut their eyes, and imitate the sound of the words "*papa*" and "*mamma*." Some of the more expensive dolls have wax or papier-mâché faces, hands, and feet, and are well modelled. The making of dolls' eyes is an important branch of industry. In America, black dolls are made of gutta-percha, expressly for the use of negro children.

DOLLY-SHOP, *dol'-le*, the name applied in London to a shop where rags, old articles, and refuse, are bought, and over the door of which is usually suspended a large black doll. Dolly-shops are often kept as cloaks for an illegal trade—that of unlicensed pawnbroking.

DOLMEN, *dol'-men*, the name given by French archaeologists to the monumental records erected over Celtic burial-places in Great Britain and France, which are called cromlechs in this country. (See **CROMLECH**.) The word is supposed to be the Celtic term for a stone table.

DOME, *dome* (Gr., *doma*; Lat., *domum*; Ital., *duomo*, a house; but, in the last-named language, applied to cathedrals and churches, as the house of God), a word which expresses any covering placed over a building and taking the form of a hemisphere or spherical vault, whether round or polygonal at the base. A distinction should properly be made between the terms dome and cupola—the former applying to the exterior, or convexity of the covering, and the latter to its interior surface, or concavity; but they are generally used as synonymous expressions. In building a dome of masonry, its thickness should be the greatest at the base, which is the weakest part, and gradually diminish towards its crown or centre. The lower courses of masonry should also be strengthened by hooping or framing, particularly if the diameter of the base be considerable. The principles on which

the equilibrium of a dome is maintained are similar to those on which the equilibrium of arches depends. They are put together on centerings of elaborate construction; but these serve rather as a scaffold for the workman than as a support for the materials of which the dome is made, until the crown is inserted. The use of the dome was not resorted to by the Egyptians, Assyrians, and Greeks; but the Romans, who were the first to use the arch to any great extent, also erected circular vaulted roofs or domes over many of the temples of their heathen gods; among which may be named those of Bacchus, Apollo, Minerva, and Diana, and the magnificent Pantheon at Rome. They also covered the chambers of some of their splendid baths with roofs built in this form; as in the baths of Caracalla and Diocletian. In Byzantine architecture, the dome was a peculiar feature in all cathedrals and churches built after that style, and amongst these the dome of St. Sophia, at Constantinople, may be especially noticed. (*See* BYZANTINE ARCHITECTURE.) The majority of the Italian churches built during the Middle Ages are also surmounted by domes. The great dome of St. Peter's at Rome was designed and partly built under the superintendence of Michael-Angelo. Among the most remarkable domes of more modern construction may be mentioned those of the Invalides and the Pantheon at Paris, and those of St. Paul's, by Sir Christopher Wren, and the reading-room of the British Museum, London. The following are the dimensions of some that have been already mentioned, with one or two additions, giving the height in feet from the base to the centre, and the diameter of the base, including the thickness of the walling or materials between the outer and inner surface:

Name.	Height.	Diameter.
Pantheon, Rome	143	142
Baths of Caracalla, Rome	116	112
Baths of Diocletian, Rome	83	74
St. Sophia, Constantinople	201	115
S. Maria del Fiore, Florence	310	139
St. Peter's, Rome	330	139
Invalides, Paris	173	80
Pantheon, Paris	190	67
St. Paul's, London	215	112
British Museum, London	106	140

Iron domes of great size have been constructed. The following are the dimensions of the inside diameters of some of the largest:—

	Feet.
London Exhibition	140
Vienna Exhibition (1873)	360
Albert Hall (oval)	219 x 185

DOMESTIC ANIMALS, *do-mes'tik*, are those which have been tamed by man and made objects of his care, and in a living state his property. Some animals, as the elephant, may be tamed and employed in labour, but will not breed except in a wild state. Domesticated animals may be classed as those which are employed in regular work, as horses; those which are reared for food purposes, as cattle, sheep, and poultry; those used to hunt or destroy other animals, as dogs and cats; and those kept as pets (among which dogs and cats have also a conspicuous place), as birds. Domestication in the course of time produces considerable changes in the appearance and habits of the animals.

DOMINANT, *dom'i-nant*, in Music, the fifth above the tonic; the ruling or governing note of the key. The sub-dominant stands next in importance to the dominant, and has its place on the fourth above, or the fifth below, the tonic.

DOMINO, *dom'-e-no*, a long robe of silk furnished with a hood removable at pleasure, and used as a disguise by persons of both sexes, chiefly at masquerades. The name domino was doubtless derived from the habit worn by the priests upon their heads and shoulders during winter; from whence sprung the association with a word frequently occurring in the liturgy of the Roman Catholic church.

DOMINOES, a game generally played with twenty-eight flat oblong pieces of ivory or bone, each divided by a line into two parts, bearing numbers marked by points. The game is won by the player who plays out all his tablets or dominoes first, or, if that is impossible, the player who has the least number of points on the dominoes left in hand. The game of dominoes is supposed to be very ancient; it has been traced back to Greek, Hebrew, and Chinese origin. At the beginning of the 18th century it was introduced into France from Italy, and, after becoming very popular there, it spread into Germany and generally over the Continent.

DON AND DOM.—Titles of honour, the former in Spain, the latter (another form of the same word) in Portugal. In Spain the title has very little more definite meaning than our English "esquire," being applied almost indiscriminately to gentlemen of position; but in Portugal no person can assume the title without special permission from the king. Under the form "Dan," the word is frequently used, in the sense of lord or master, by Chaucer, Spenser, and other old English poets, and applied in a poetical or humorous manner as "Dan Phœbus," or "Dan Cupid."

"DON JUAN," a legendary profligate, who, after leading a life of reckless indulgence, was carried away bodily to the infernal regions by the vivified statue of a man whom he has murdered. The hero of the legend is supposed to be a member of a noble family of Seville. The first dramatic version of the legend was by Gabriel Tellez (an ecclesiastic, who in his secular works assumed the name of Tirso de Molina), and was entitled *Burlador de Sevilla*, the deceiver of Seville. The story is noteworthy as having directly originated Molière's *Festin de Pierre* and Mozart's greatest opera, *Don Giovanni*, and suggested the title at least of Byron's brilliant poem, "Don Juan."

"DON QUIXOTE," or more accurately, "Adventures of Don Quixote de la Mancha," the principal work of the great Spanish novelist Miguel de Cervantes Saavedra, better known as Cervantes only, and one of the most renowned productions of modern literature. The first part appeared at Madrid in 1605. Like other poor authors in these days, Cervantes stood in need of a patron, and he requested the Duke of Bexar, an influential nobleman, to permit the work to be dedicated to him. The duke, being informed that the book was of a satirical character, refused; but the author pleaded so earnestly to be allowed to read a single chapter that consent was given, and the delight which the duke experienced was so great that he accepted the dedication. The hero of the fiction, a pure-minded and enthusiastic poor gentleman of La Mancha, a small district partly in the kingdom of Aragon and partly in Castile, has read so many of the romances and poems of chivalry, that his brain is fired with the idea of emulating the achievements

of the knights errant of the mediæval romances. "He became so infatuated with this kind of study that he passed whole days and nights over these books; and thus, with little sleeping and much reading, his brains were dried up and his intellect deranged. His imagination was full of all that he had read: of enchantments, contests, battles, challenges, wounds, courtships, amours, tortures, and impossible absurdities; and so firmly was he persuaded of the truth of the whole tissue of visionary fiction that, in his mind, no history in the world was more authentic." Donning an old suit of armour, and mounted on a wretched horse, which he has named *Rosinante*, he sets forth in search of adventures, accompanied by a fat, proverb-loving, most unpoetical rustic, *Sancho Panza*, whom the knight calls his esquire. The gaunt figure of the knight (whose name *Quixote* is taken from the Spanish *quixadas*, jaws, expressive of his lean visage) mounted on the almost skeleton horse, and followed by the rotund, coarse *Sancho* on a donkey, are grotesque objects enough; but the intense sincerity, kindness, and chivalrous courtesy of the "crack-brained gentleman" excite a feeling far above that of the ludicrous. He lives under the influence of a glamour of imaginative enthusiasm. Peasant wenches are lovely distressed princesses; shepherds are giants, and flocks of sheep hosts of enemies. A windmill is a terrible opponent, and, lance in rest, the gallant knight rides full tilt against it. Innkeepers are lords of castles, and every common incident is magnified into romantic importance. In matters unconnected with this special delusion, *Quixote* is a shrewd, scholarly gentleman; and the conversations between him and *Sancho*, the embodiment of uncultured common-sense, but whose love for his master makes him the most faithful of followers, are admirable. Charming little stories and sketches of character are interspersed in episodes; pathos and sentiment mingling with the fine burlesque and broad humour of the main incidents. The work soon achieved a great popularity; and in 1614, a few years after its appearance, *De Avallanedar*, one of those literary pirates who coolly appropriate the ideas of bettermen than themselves, published a spurious continuation, in which scurrility was more conspicuous than true satire. This probably hastened the appearance of the authentic second part, published in 1615. In this part, *Sancho* is more conspicuous; but the work ends with the restoration to reason of the bewildered *Quixote*, and his death in a frame of mind becoming a Christian gentleman. *Quixote* ranks with *Hamlet* and *Falstaff* among the greatest creations of fiction; and it is worth noting that *Cervantes* and *Shakespeare* died on the same day.

DONJON, or **DONGEON**, *don-jon* (Fr., *donjon*), the name given to the keep or principal part of a castle. (See **CASTLE**.) Prisoners were generally confined in the basement story of the donjon, and from this circumstance, the word now written *dungeon* has been taken to express any dark and dreary prison cell, but more particularly one which is partially or entirely below the surface of the ground.

DOOR, *dore* (Sax., *dure*; Teuton, *deur*), the movable panel by which the doorway or entrance to any building, apartment, closet, or court is closed. When they move on hinges, like the ordinary doors of apartments, they are termed "swing-doors." Large double doors used to separate any long room are called "folding-

doors." A jib-door is a door in a wall, which cannot well be detected when closed. A rolling or sliding door is one which travels on rollers, or in a groove, parallel and close to the wall in which is the aperture that it is intended to close. A smaller door which closes an opening cut in the entrance-door of a court-yard or large building, is called a "wicket-door." A trap-door is a door cut in the floor to give access to cellars, or open parts under the roof of a house. In Egyptian and Assyrian architecture the doorways are surmounted with square lintels. The openings, particularly in the former, were wider at the bottom than at the top, and surrounded by a flat moulding enriched with sculpture. The lintel was generally very deep, and surmounted with a projecting cornice, and colossal figures were usually placed on either side of the opening. The doorways in Grecian architecture were rectangular in form; they were surrounded by mouldings, and sometimes surmounted with a cornice supported on brackets. In early Roman architecture the form of the doorway was the same; but at a later period the semicircular arched heading was introduced, which subsequently became the characteristic feature of the Byzantine and Romanesque styles. In Arabian and Gothic architecture the head of the doorway assumed a pointed form, and in the latter the opening was surrounded by a great variety of bold and deep mouldings, and richly ornamented. The decoration employed became more and more elaborate in the transition from the Norman style to the Perpendicular English, through the Early English and Decorated English periods, being, perhaps, most graceful and natural in the style last named. In the Perpendicular English style of architecture, the doorway, although it was still pointed, was surmounted by a square moulding or label, which is peculiar to buildings in this style and of the Tudor period, when the flat four-centred arched heading was introduced.

DORIC DIALECT, *dor'-ik*, was one of the four dialects of the ancient Greek language, being that spoken by the inhabitants of *Doris*. It was characterized by a certain roughness and harshness, and was much less polished than either the *Ionian* or *Attic*. *Pindar*, *Theocritus*, and *Bion* wrote in this dialect.

DORIC ORDER. (See **ARCHITECTURE**.)

DORMANT, *dor'-mant* (Fr., sleeping), in Heraldry, an animal is said to be dormant when it has its head resting upon its fore-paws, in contradistinction to couchant, where the head of the animal is held erect.

DORMER, *dor'-mer*, the name given to a window put in a small projection like a gable rising vertically from the roof of a house, and used to light attics or sleeping apartments in the roof. Their are sometimes three, and even four, rows of dormer windows in the steep roofs of large public edifices built in France, Belgium, Holland, and Germany, between the commencement of the 15th and the close of the 17th century.

DORMITORY, *dor'-me-tor-e* (Lat., *dormire*; Fr. *dormir*, to sleep), a sleeping-chamber, but especially applied to large apartments in a monastery or school calculated to hold a great number of beds. Each side of the dormitory in religious houses was often divided into a number of small cells.

DOTTED NOTES, *dot'-ted*, in Music, notes

which are increased in length by the addition of dots placed after them. A dot placed after a note renders it half as long again. A double dot placed after a note increases it to three-fourths its original value. Rests may also be increased by the addition of dots. When dots are placed at the sides of double bars, they indicate that the portions on the dotted sides are to be repeated. They are sometimes attached to single bars for precisely the same purpose.

DOUAY BIBLE. (See BIBLE.)

DOUBLE BAR, *dub'-l* (Fr., *double* and *barre*), in Music, a term applied to two straight parallel lines drawn close together perpendicularly through the staff, for the purpose of dividing the various strains of movement.

DOUBLE BASS, CONTRA BASS, OR VIOLINO.—The deepest and most powerful-toned instrument employed in concerted music. It so enriches and sustains the masses of harmony, as to be indispensable in the orchestra. It has three thick catgut strings, which are tuned by fourths, and generally plays from the same book or part as the violoncello, though it is sometimes found necessary to write a distinct part for it. Notwithstanding that all music for the double bass, in common with that for the violoncello, is written in the bass clef, the real pitch of the former instrument is an octave lower than that of the latter.

DOUBLET, *dub'-let* (Ang.-Nor.), a tightly-fitting coat or jacket, closely resembling the jerkin formerly worn. It reached a little below the waist-belt; and the sleeves, although generally fastened on to the body of the garment, were sometimes detached, and tied on at the shoulder. The name "doublet" is derived from the fact, that it was usually wadded, or doubled, for purposes of defence.

DOWNS (Celtic, *dun*, a hill), a general name for undulating tracts of upland, covered with short grass, and with a soil too light for cultivation. It is sometimes given to hillocks of sand thrown up along the sea coast; but the French form of the word, *dunes*, is more generally used by geographers.

DRACHM, DRACHMA, OR DRAM, *dram* (Gr., *drachme*), a silver coin of ancient Greece, used as the unit of the money system. Since the year 1833 the unit of the money system of modern Greece has also been called *drachma*, and is equal to about 8½d. Amongst the ancients the value of the drachma varied at different times and places. The Attic drachma was nearly equal to a French franc, or 9½d. in English money. It differed according to the value of specie, but was always calculated as the rooth part of the *mina*, which was generally worth about £4 sterling. There were also coins valued at two, three, and four drachmas.

As a Weight, the drachma was considered also equal to the rooth part of a *mina*, or about ½ oz. There are two drachmas, or drams, used as weights in England—viz., the avoirdupois, which is equivalent to 27½ grains troy, and the apothecaries', which is equivalent to 60 grains troy.

DRAGOMAN, *drag'-o-man* (Turk., *truke-man*), the term applied, in Turkey, to all interpreters or foreign guides. The diplomatic dragomen, however, are very important personages, and serve as a means of communication between

the officers of the Ottoman government and the ambassadors of other European nations, and are allowed several important privileges. They are seldom pure natives, but mostly Italians, descended from Genoese or Venetian merchants. The occupation of the ordinary Turkish dragoman is similar to that of the French *commissonnaire* and the Italian *cicerone*.

DRAGON.—In nearly every country, and at all times, there have been legends concerning the existence of a huge monster, which went about devouring and devastating all before it. This monster, or dragon as it is generally called, is supposed to be the symbolical representative of arrogant power and cruelty, whose sole object is to oppose order and progress. Although it is probable, as Brand says, that "the dragon is one of those shapes which fear has created itself," nevertheless from the generality of the legends concerning this winged saurian, it is possible that the existence of some species of the pterodactyl, in very remote times, may have originated the superstition. However this may have been, it is certain that this mythical animal, in all ages, has been looked upon as a minister of evil, the destruction of which was considered one of the grandest objects of human energy. The task was usually allotted to gods and heroes. Apollo killed the Python, and Perseus slew the dragon, and saved Andromeda. Hercules, as the idea of physical power, is also represented as a dragon-slayer, having killed the monster which guarded the Hesperides. From poetry the legend of the dragon passed into art, and the Greeks and the Romans bore it as an emblem on their shields and helmets. In the *Nibelungen Lied*, in later times, Siegfried is represented as killing a dragon; and in the epic of Beowulf, the two contests of the hero, first with the monster Grendel, and afterwards with the dragon, form the principal incidents of the poem. Among the Scandinavians, Thor was described as a dragon-slayer. Among the Teutonic tribes the practice of bearing the dragon as an emblem on their shields and banners was common, and they introduced the practice very early into England. Among the Celts the dragon was considered the emblem of sovereignty, and as such was borne on the helmet of the monarch. In the Middle Ages, in religious paintings, the dragon was looked upon as the representative of sin. Saints and martyrs are frequently depicted trampling a dragon under foot. It is also used with this signification in the figure of St. George and the Dragon. Sometimes it has been used as a symbol of heresy. A body of men in Hungary, who enrolled themselves in order to crush John Huss and his followers, called themselves Knights of the Order of the Dragon. The figure of the dragon is much used in Heraldry; and when an animal, such as a lion or tiger, is represented with its own head but with a dragon's wings and tail, it is said to be *dragonné*. The dragon emblem is very conspicuous in China. In the authorized version of the Old Testament, two Hebrew words, of different meanings, are both translated dragon. One refers to some wild beast of the desert; the other, to a monster either of the land or of the sea, an immense serpent or a whale. In the New Testament the word is used as metaphorically indicating Satan.

DRAMA, *dra'-ma* (from the Gr., *dram*, action), a poem or piece composed for the stage; a composition in dialogue, in which the action is recited and represented, and not related. Almost

every ancient and modern civilized people have cultivated dramatic representation in some form. The Hebrews were an exception to the general rule; for, although the dialogue form was occasionally adopted in their ancient writings, as in the book of Job, and also in the Song of Solomon, there is no instance of anything approaching a dramatic composition as defined above. Imaginative and impassioned as they were, and many of them endowed to an almost unrivalled extent with the poetical and musical faculties, they found in their own authentic history enough of sublime and stirring incidents, and in their national heroes enough of personal interest, to occupy their thoughts without inventing new scenes, or impersonating fictitious representations of elevated humanity; and their religious veneration prevented them from following the example of other nations, and endeavouring to present divine personages in human form. Dramatic performances in a regular form originated in Greece, and in Athens especially attained a high degree of perfection. It will be more convenient to refer at greater length, historically and critically, to the dramatic literature of Greece, Rome, Italy, Spain, Germany, England, and other countries, under special headings. The main elements of success in a dramatic composition are—first, that the story is clearly told by the dialogue and action on the stage; secondly, that the incidents are sufficiently interesting to attract the audience, and that the characters are strongly individualized. In the earlier Greek drama the first result was not completely attained, and a chorus was introduced for the purpose of explaining the incidents and making the story more intelligible. It was considered indispensable, too, when the drama assumed a more regular form, that the “unities” of time and place should be observed, so that the spectator might be impressed by the idea that he was witnessing real occurrences, and not be compelled to call his imagination into play to reconcile the incongruities of the stage. (See UNITIES.) Modern scenery and costume now assist the imagination by presenting successive pictures, and the spectator is prepared by these accessories to realise changes of place and persons in the action of the drama. Dramatic productions of the highest class combine incident and character, interfused and of mutual influence. When the incidents are of a pathetic or terrible kind, and the characters exhibit powerful emotions, a tragedy is the result; when both incident and character are of a gay and sportive nature, and the dialogue is imaginative and witty, appealing to the fancy rather than to the sterner emotions, the drama is a comedy. The old Greek dramatists drew a fixed line between tragedy and comedy. More modern writers, with Shakespeare at the head, have relieved tragic incidents by the introduction of comic scenes, and so heightened the general effect, while intensifying by contrast the force of the tragic incidents. (See COMEDY, FARCE, TRAGEDY, and headings referring to the drama of various countries.)

DRAMATIS PERSONÆ, *dram'-a-tis per-so'-ne* (Lat.), the various personages introduced in the course of a drama, or the actors representing the characters in a play.

DRAPEY, *drai'-pe-re*, in the Fine Arts, the proper treatment of drapery thrown about any figure executed in plaster or marble is attended with difficulty, and requires considerable skill on the part of the artist and modeller; in

many cases, additional effect is given to the figure, and the story is conveyed to us in a more striking manner, by the addition of a little drapery thrown around the nude form, the folds of which are carefully arranged and skilfully disposed to suit the circumstances under which the figure is represented. Thus, a short garment girt round the waist of a running figure, showing the contour of the fore part of the thigh and knee, and streaming out behind, gives additional force to the action by exhibiting the influence of the wind on the figure, which is supposed to be in rapid motion. Whenever drapery is used, it should be so contrived that it may give expression to the form of the figure, and aid in explaining the story that the sculptor wishes to convey to us in connection with his work.

“**DRAPIER'S LETTERS**,” a series of letters written by Dean Swift, and signed M. B. Drapier, attacking the Government for granting a patent, in 1723, to a man named Wood, to supply a deficiency of £108,000 in the copper coinage of Ireland. The letters occasioned an immense sensation in Ireland; and in April, 1724, the Government prosecuted and imprisoned Harding, the printer; but he refused to reveal the name of the author. In consequence of the excitement in the country, the patent was abandoned, after £40,000 in halfpence had been coined; and Wood, who received an indemnity of £300,000 per annum for twelve years, was compelled by the popular indignation to leave the country. The impression apparently was that base coin was issued; but the halfpence were tested by Sir Isaac Newton, master of the mint, and found to be genuine.

DRAUGHTS, a game played by two persons on a board similar to that used in playing chess. Each player has a set of twelve pieces, which consist of small round flat disks, made of wood or ivory; one set is black and the other is white. The pieces must all be placed on the same colour, in alternate fours in the first three rows, before each player. The pieces must only move one square at a time, diagonally and forwards. If an opponent's piece stands in the way, there is no retreat—the player must either advance or take his adversary's piece. A piece can only be taken, however, when there is a vacant square directly hind it; the attacking piece is lifted over and placed on this vacant square, while the piece leaped over is removed from the board. The object of the game is either to take all the adversary's pieces, or to hem them in so that he cannot play. The game increases in interest towards the close, as those pieces that reach a vacant square on the adversary's first line become *kings*, that is, their power is doubled, and they can move backward or forward to all parts of the board. A player must take a piece when called on to do so, as his opponent, by the loss of that piece, might gain a great advantage in position, for which purpose pieces are often intentionally sacrificed. A player neglecting to capture a piece is “huffed;” that is, forfeits the piece which ought to have taken the other. There is considerable room for ingenuity in playing the game, which in France is named *Les Dames*.

DRAUGHTSMAN, *drafts'-man* (Anglo-Saxon), one who is skilled in the use of the pencil. A mechanical draughtsman is one who is skilful in making drawings of machinery, diagrams, maps, and plans, in which the use of mathematical instruments is involved.

DRAWING, *draw'-ing* (Ang.-Sax.), the art of delineating objects in outline on a flat surface, without reference to light and shadow, in the primary acceptation of the word, which, in a more extended sense, is also taken to signify any finished work of art, with all the necessary effects of light and shade, executed in pencil, crayon, Indian ink, sepia, water-colours, and in pen-and-ink, after the manner of an etching. But to return to the primary meaning of the word. It is by his skill in outline that the productions of an artist are chiefly marked. A work that is faulty in drawing, however excellent the manipulation may be, is of little worth, and is unsatisfactory to the eye. Good drawing is characterized by power, freedom, grace, and accuracy, and these qualities can only be acquired by study and constant practice. Sketching, or landscape-drawing, is perhaps less difficult than any other branch of the art, because its imperfections can be less readily detected; but it is a far more difficult task to delineate the human figure, and, by a few bold strokes, to produce outlines which present expression, combined with freedom of treatment. The student who would excel in the representation of the human form must carefully study the anatomy of the figure, the construction of the skeleton, the functions and positions of the muscles, and the varied workings of those of the face which serve to indicate the various passions and emotions of the mind. To attain correctness in landscape-drawing, a knowledge of perspective is indispensable, the first principles of which are explained elsewhere. (See PERSPECTIVE.) Without a knowledge of this most important branch of the art, no representation of landscape scenery or objects which present geometrical forms can be correctly expressed; and it is equally necessary to attain a correct method of rendering the lights and shadows of a picture, which are entirely regulated and defined by certain rules of perspective. The apparatus required by a beginner consists of a drawing-board made of a piece of deal or mahogany, clamped at the edges by pieces of which the grain runs in a contrary direction, to prevent it from warping; some pencils, india-rubber, a T square, and a box of simple mathematical instruments. The paper may be damped and pasted to the edges of the drawing-board, and then allowed to dry, when it will be found to present a beautifully smooth and even surface, or it may be fastened to it with small pins that have broad flat heads and are known as drawing-pins. After practising at the formation of elementary figures, such as straight lines, curves, rectangles, triangles, circles, and ellipses or ovals, there are no better examples for study than the leaves of various plants. When these can be sketched with readiness and freedom, drawings may be made from vases, cups, articles of furniture, and simple plaster casts. From this the learner should proceed to the study of perspective, and give roundness to his forms in outline by the proper introduction of light and shade, varying his work by copying from the flat, as it is technically termed. (See ISOMETRICAL DRAWING, MECHANICAL DRAWING.)

DREAMS, *dreems*. It would appear that the reasoning or imaginative powers may occasionally possess in dreaming a strength unknown to them in their ordinary condition. Thus Condorcet saw in his dreams the final steps of a difficult calculation that had puzzled him during the

day; and Condillac states that when engaged with his "Cours d'Etude," he frequently developed and finished a subject in his dreams which he had broken off before retiring to rest. In this case it would seem that the reasoning faculties having been powerfully excited, kept awake, and free from disturbing influences, exerted all their strength. The circumstances under which Coleridge composed his fragment called "Kubla Khan" have been described by himself, as follows:—"He had fallen asleep in his chair while reading in "Purchas's Pilgrimage" of a palace built by Khan Kubla, and remained asleep for about three hours, during which time, as he himself tells us, "he could not have composed less than two or three hundred lines—if that, indeed, can be called composition in which all the images rose up before him as things, with a parallel production of the corresponding expressions, without any sensation or consciousness of effort." On waking, he instantly sat down to commit it to paper; but after having written so much of it, he was called away by a person on business, and when he returned to the task, the poem had vanished from his memory. The popular belief that there is something supernatural in the nature of dreams, and that frequently in this way events are revealed that are about to happen, has been held from the earliest times, and is shared in by many in the present day. Tartini, the Italian violinist, composed a brilliant piece of music in his sleep, writing it down immediately he woke. Many of the instances of remarkable dreams may, doubtless, be explained from natural causes, but there are others so well authenticated that we cannot altogether discredit them, that are manifestly unexplainable by any natural means. Dreams, as Divine messages, and their interpretations, are conspicuously mentioned in the Old Testament. If we admit the testimony on which these dreams are given, we are driven to confess that they arise from causes and are subject to laws of which we are ignorant.

DRESS, *dres* (from Fr., *dresser*, to make straight), a term applied to the body-coverings used by all but the most uncivilized human beings for the purposes of warmth and ornament. The dress adopted in different nations differs in form and in the substances employed, but in general is suited to the climate in which it is worn, and the occupations of the people. In most of the countries of Europe, among the upper and middle classes, one style of dress is adopted, varying at times according to the dictates of fashion.

DRILL, the general name given to the exercises by which a soldier is qualified for his duty. Squad, or setting-up drill, teaches him how to march in slow, quick, and double time, to go through his facings, and to perform certain simple evolutions from the halt or when marching; these are combined with posture exercises, called extension motions, which tend to give the soldier a good carriage and an erect military figure. When the recruit is dismissed from squad drill, which is taught to small batches or squads of men by a sergeant appointed for the purpose, he learns company drill, the manual and platoon exercise, and position drill; he is then competent to go through a course of battalion drill in concert with the other companies of the regiment to which he belongs, and to proceed to aiming drill, judging-distance drill, and target practice. In every regiment every soldier goes through a course of

setting-up drill in the spring. The course of drill for each arm of the service is similar, as far as the elementary part is concerned. Punishment drill is an extra quantity of drill assigned to a soldier for some minor fault, which he has to go through in heavy marching order.

DRINKING FOUNTAINS.—Several public fountains, giving out small streams of water, and filled with drinking cups, were erected in Liverpool in 1837; and some afterwards in London, by the Metropolitan Drinking Fountain Association. In some of the public parks there are very large and handsome fountains, gifts from distinguished persons.

DRINKING USAGES (Sax., *drincan*, to drink; Fr., *usage*, usage).—From the earliest times of remote antiquity, there have always been special usages connected with the custom of drinking. Amongst the ancient Hebrews, the drink-offering constituted one of the most solemn parts of their religious ceremonies. Amongst the ancient Greeks and Romans, the pouring out of libations to the gods was an ordinary religious ceremony. They were not only offered before solemn prayers, but also before meals. In the latter case, the host, before the guests began to eat, poured a small quantity of wine upon the floor, as a sort of propitiation to the gods. This practice was somewhat equivalent to our grace before meat. It was also the custom at times to drink to the health of the guests. From usages such as these, in after-time, arose the custom of proposing healths or giving utterance to sentiments before drinking at a feast. Among the Scandinavians, Teutons, and Ancient Britons, such usages were customary at their boisterous carousals. The Anglo-Saxons were in the habit of crying, "*Wes hæl*" (be in health) before drinking. The word "*Wassail*" is evidently derived from this origin. The practice of pledging a guest before drinking arose from a necessity of showing that there was no poison in the wine, or that there was no danger to the guest while he drank. It originated in the 10th century. The introduction of Christianity did not at all contribute to abolish the practice of using the wassail cup. It began, on the contrary, to assume a religious aspect; and in the larger monasteries, amongst the monks of old, the wassail bowl was placed at the right hand of the abbot in the refectory. It was handed round to each, and was called *Poculum Charitatis*. In the universities a similar cup is still passed round, called the grace cup. In the dinners given by the public companies of the city of London, after the cloth has been removed, the master and wardens rise, and "drink to their visitors in a loving cup, and bid them all heartily welcome!" A silver cup filled with warm spice wine is then handed round to all present. Some of the drinking-cups belonging to the priesthood in the Middle Ages were of the most costly workmanship. That of Thomas à Becket is still preserved; it is made of ivory, mounted with silver, and studded on the summit and base with pearls. Round the cup is an inscription, "*Vinum tuum bibe cum gaudio*" (drink thy wine with joy); but round the lid, deeply engraved, is the restraining injunction "*Sobrii estote*" (be moderate). The word toast, with regard to drinking usages, is comparatively modern; it originated in the practice of putting a piece of toast in a jug of ale. According to "The Tatler," the word toast was first applied to the drinking of healths at Bath, in the reign of

Charles II. A celebrated beauty of the time was in the large public bath, and a number of her admirers were standing around. One of them took a glass of water from the bath and drank to her health; while another who was standing by, half tipsy, offered to jump in, saying, that although he objected to the liquor, he would like to have the toast. From that time the word was applied to drinking the health of any beauty at private parties, and, in time, all sorts of subjects were toasted at public and private feasts. Toasts also began to be accompanied by cheers; and at the present day, at large public banquets, toastmasters are generally appointed, who not only give out the subject of the toast, but lead the cheers which follow. Many drinking usages are connected with domestic events, and seem to have been handed down from ancient times. The custom of drinking at births, christenings, and marriages, can easily be accounted for; but the strangest usage of all is the practice of drinking at funerals. The wakes held in Ireland and some parts of Scotland have been long maintained, and are still kept up by habit. They probably owed their origin to the want of excitement amongst the phlegmatic northern nations, and the long dark nights in a cheerless climate. A custom, certainly "more honoured in the breach than the observance," very extensively prevails. Persons meeting acquaintances on the street appear to think it necessary that they should drink together; and "Come and have a glass," is a very frequent invitation. In many houses of business, too, a bottle of sherry is produced on the conclusion of a transaction.

DRIPTONE, *drip-stone*, a projecting moulding or tablet placed over the head of a Gothic doorway or window, for the purpose of throwing off water.

DRUM, *drum* (Du., *trom*, *trommel*; Ger., *trommel*; Dan., *tromme*), a musical instrument of percussion, the invention of which was attributed by the Greeks to Bacchus, it was used by the Egyptians, and was introduced into Western Europe by the Moors. Of drums we have three kinds; they are as follows:—1. The *base* or *Turkish drum*, which is the largest, and consists of a hollow cylinder of oak covered at each end with vellum fastened to the rim in such a manner that it may be tightened or loosened *ad libitum* by means of small cords or braces acted upon by sliding knots of leather. 2. The *double* or *kettle drum*.—An instrument made of copper, nearly hemispherical, covered with a strong head of calfskin, and standing upon three iron legs. They are always in pairs, and are tuned by screws—one to the keynote of the piece accompanied, and the other a fourth below. 3. The *side-drum*.—This is constructed like the first, but generally has a brass cylinder, and is much smaller. In modern large orchestras there has been introduced a drum of great size, without cylinder, and resembling two tambourines joined at a short distance apart by small bars of iron. A drum of this kind was first used on the occasion of the first Handel Festival at the Crystal Palace. The Hindoos use a small drum beaten by the hand, and called a "*tom-tom*." The Laplanders formerly had in each family a sacred drum to which rings were attached, and the shaking of the rings, when the drum was beaten with a reindeer's horn, was supposed to indicate future events.

DRUM, a Celtic word signifying a round hill, and forming a part of the names of many places, especially in Ireland.

DRUM, a name given in the last century to a fashionable evening party, or, rather, card-playing assembly. An afternoon informal party is now known as a "kettledrum."

DRURY-LANE THEATRE, the most famous of London places of amusement, was first opened as a theatre in the reign of James I., the building having been previously used as a cockpit. It was rebuilt, and for a short time was named the Phoenix, and was opened by the king's company of players, known as "His Majesty's servants," in April, 1663, under the management of Thomas Killigrew, to whom Charles II. had granted an exclusive patent. The theatre was burned down, with sixty houses, in 1672, and a new building, erected from the design of Sir Christopher Wren, was opened on the 26th of May, 1674; and Davenant's company having united with the king's, was the only theatre in London. The last performance in Wren's theatre took place June 4, 1791, after which it was pulled down and rebuilt by M. Holland, the new theatre being opened with a performance of sacred music, March 12, 1794. It was burned down, February 24, 1809; and the present building, designed by Mr. B. Wyatt, was opened October 10, 1812. A public competition for an address for the opening night gave rise to the famous "Rejected Addresses," by the brothers James and Horace Smith, in which the styles of the chief poets and popular versifiers of the day were most comically parodied. The address delivered was written by Byron. Drury-lane theatre is associated with the greatest performers on the British stage—Cibber, Wilkes, Booth, Garrick, the Kembles, Mrs. Siddons, Kean, Dowton, Elliston, Macready, Madame Vestris, Ellen Tree, and many others.

DRY POINT, a sharp, fine-pointed etching-needle, used to cut fine lines in a copper or steel plate without biting them in with acid. Work produced in this manner is very delicate as well as durable.

DRY PROCESS. (See PHOTOGRAPHY.)

DUAL, *du'-al*. In some languages, a noun or a verb assumes a form when only two things are spoken of, different from that of the ordinary plural. The form occurs chiefly in the more ancient languages.

DUBLIN UNIVERSITY, *duB'-lin*. A University of Dublin in connection with St. Patrick's Cathedral was established in 1320; but ceased to exist on the dissolution of the cathedral by Henry VIII. The existing university was founded by Queen Elizabeth in 1591, and incorporated by charter, or letters patent, as a "college, the mother of a university," under the title of "The College of the Holy and undivided Trinity, near Dublin." Since that period several royal charters have been granted by succeeding sovereigns, extending the privileges of the university, and making such alterations in the statutes and constitution as were from time to time deemed necessary. In 1851 a royal commission was appointed to enquire into the state, discipline, studies, and revenues, of the university; and, in consequence of their report, various alterations were effected in the statutes.

Officials.—The officers of the university are the

chancellor, vice-chancellor, provost, two proctors (both fellows), a senior lecturer, two deans, a censor, librarian, registrar, auditor, professors, and examiners.

Senate.—This body consists of the chancellor, or, in his absence, of the vice-chancellor or pro-vice-chancellor for the time being, and such doctors or masters of arts as shall have and keep their names on the books of the college. The senate elects the chancellor. The caput of the senate is a council, consisting of the chancellor or vice-chancellor, the provost (or, in his absence, the vice-provost), and the senior master non-regent, who is elected by the senate. Every grace for the bestowal of a degree must pass the caput before it can be proposed to the rest of the senate, and each member of the caput has a negative voice.

Provost.—The provost, or head of the college, is appointed by the Crown, and may be a layman of any religious denomination. His income is about £3,000 a year.

Fellows.—The fellows are all chosen in the first instance by strict examination, but the seniors are promoted from the juniors in the order of seniority. The senior fellows have no stated duties, except those connected with the general management of college affairs. The junior fellows, twenty-three in number, form the great teaching staff of the college. The average income of a senior fellow is about £1,380 a year; that of a junior, £800. They hold their fellowships for life, unless they choose to accept of the incumbency of one of the thirty-two benefices at the disposal of the college. The law binding them to celibacy was abolished in 1840; and it is not now, as formerly, compulsory that they should (with the exception of five) take holy orders in the Episcopal church.

Professors.—A large staff of professors give lectures in divinity, natural philosophy, mathematics, law, medicine, languages (including Irish), moral philosophy, oratory, English literature, modern history, political economy, botany, geology, civil engineering, and other subjects.

Scholars.—The scholars, seventy in number, are chosen from among the undergraduates after examination; one class of scholarships being for classical, another for scientific merit. Scholarships are open to all students, and are tenable for five years. A scholarship is worth about £50 a year. Besides these foundation scholarships, there are also minor scholarships, and forty exhibitions of £25 per annum tenable for ten years.

Students.—There are four grades of students:—1, Noblemen, sons of noblemen, and baronets, who enjoy certain privileges, the two first being entitled to the degree of B.A. *per specialem gratiam*; 2, fellow-commoners, who have the privilege of dining at the fellow's table, and who are entitled to the degree of B.A. with one term examination less than pensioners; 3, pensioners, who form the great body of the students; 4, sizars, who are students of limited means, and have their commons free of expense, and are exempted from annual fees. Sizars are admitted annually by examination, and the number is limited to 30, the sizarship, worth about £37 per annum, being held for four years. The mode of admission into the university is by an examination held once in every month (except February, August, and September. The principal entrance examinations are in June and October (trio). The subjects of examination embrace Latin and English composition, arithmetic, algebra, English history, and modern geography. Besides the honour of "first place" at entrance, prizes of the value of £5 and £2 are awarded for excellence in special branches of the entrance course, and also for Hebrew. Each student at entrance must select one of the junior fellows who act as tutors to be his instructor and guardian of his interests during his academic career. Undergraduates of the first and second year are junior and senior freshmen; of the third and fourth, junior and senior sophisters. The course for all students is—*first* year, mathematics, Greek, Latin; *second*, mathematics, logic, and metaphysics, Greek, Latin; *third*, logic and metaphysics, physics, Greek, Latin; *fourth*, astronomy, ethics, physics (mathematical and experimental), classics. An extended course is prescribed for those who aspire to academic honours. Terms may be kept in two ways—by attendance upon the lectures or by merely passing the term examinations. Hence any student, unless he

be a scholar, may prepare himself for the examinations without residing in the college or in the city; and on his being represented by his tutor as resident in the country, no other academic duties are required of him. Students of divinity, law, engineering, and medicine, however, are required to attend lectures, and therefore must reside in the college or city. There are three academic terms in the year—Michaelmas, Hilary, and Trinity; the two former followed by a short recess, the latter by a vacation of three months. The undergraduate course extends over four years, when the student, having duly passed term examination is promoted to the degree of B.A.

Degrees.—The *comitia* for granting degrees are held on Shrove Tuesday and the last Wednesdays on Trinity and Michaelmas terms. The higher degrees are procurable after the lapse of a fixed number of years, and on the performance of certain exercises and payment of fees.

Fees.—The fees for the entrance or first half-year are—for noblemen £60, fellow-commoners £30, pensioners £15, sizars £5 1s. 3d.; for other half-years, noblemen £33 12s., fellow-commoners £16 16s., pensioners £8 8s., the sizars being exempt. These payments do not include rooms and commons. To encourage meritorious students, and to make some provision for those who, after graduation, desire to devote themselves to learning, fourteen studentships were founded by royal statute in 1859. These are open to candidates of all religious denominations, and are tenable for a period not exceeding seven years. Two are given every year. The emolument, as fixed by the provost and senior fellows, is not to exceed £100 per annum.

Special Schools.—A school of engineering was established in the university in 1842, with the view of combining the theoretical and practical instruction necessary for the profession of civil engineering. There are also schools for divinity, law, and medicine.

Parliamentary Representation.—The university returns two members to Parliament, the electors being the provost, fellows, masters of arts and those of higher degree, and scholars.

DUCKING-STOOL, *duk'-ing stool* (Ang.-Sax.), an apparatus of varied form, used formerly in Britain for punishing scolding wives. One of the most ordinary forms of the ducking-stool was the following:—A strong wooden chair was fastened in the end of a long beam, which worked like a see-saw on a pivot, on a post bedded into the edge of a dam or the deep part of a river. The woman was placed in the chair with her arms drawn backwards; a bar was placed across her back and inside her elbows, while another bar held her upright: in this uncomfortable position she was securely tied with cords. The persons appointed to carry out the punishment, by raising their end of the beam, caused the unfortunate culprit to go over head in the water. By pulling down their end with a chain, she was once more brought to the surface; and the ducking was repeated, according to the enormity of her offence. Sometimes the ducking-stool was combined with a tumble. The practice of using the ducking-stool commenced in the 15th century, but had almost died out by the close of the 18th.

DUENNA, *du-en'-na* (Span., *dueña*), the title applied to the chief lady in waiting upon the Queen of Spain. In a more restricted sense, the term is used to designate a person holding a middle position between a governess and companion, and appointed to take charge of those young ladies in Spanish or Portuguese families.

DUET, *du-et'* (Ital., *duetto*), a two-part musical composition, either vocal or instrumental, with or without a bass and accompaniments. Although combined by the situation of the harmony, the parts are not necessarily similar in their motion; on the contrary, it is by varying

and giving them contrary directions, that the best effects are produced.

DULCIMER, *dul'-se-mer* (Ital., *dolcimello*, from *dolce*, sweet), a musical instrument, consisting of three wires strung over sounding boards and bridges, and played by striking with small hammers. The dulcimer mentioned in the Old Testament (Dan. iii.) was a Chaldean musical instrument, probably a pipe or series of pipes.

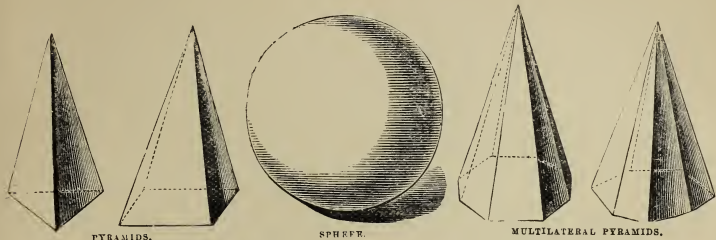
DULWICH COLLEGE, *dul'-ij*, was founded at Dulwich, a suburb of London, about 4½ miles S.S.E. of St. Paul's, by Edward Alleyn, an actor, in 1619. The original revenues only amounted to £800, but they now exceed £17,000, and maintain a master, four fellows, twelve poor brethren, twelve poor sisters, twelve poor scholars, and sixteen out-pensioners. The college was partially rebuilt in 1740; and the revenues arising from the property having greatly increased, in 1857 the charity was remodelled, after a considerable amount of legal controversy, and now bears the name, "Alleyn's College of God's Gift at Dulwich." It is managed by nineteen governors, and the Archbishop of Canterbury is the visitor. Four parishes are benefited by the charity—St. Luke's, Middlesex; St. Botolph's, Bishopsgate; St. Saviour's, Southwark; and St. Giles's, Camberwell. The old College—the warden of which must bear the name of Alleyn, or Allen, license in respect to orthography being permitted—is a quaint building in the Tudor style, rebuilt in 1842, surrounding three sides of a garden, and flanked by the Picture Gallery. The new school buildings, about a quarter of a mile away (opened by the Prince of Wales in 1870), were designed by Mr. Barry, and cost £100,000; there is accommodation for the education of about 700 boys. There is a picture gallery containing some fine paintings, chiefly by the old masters, bequeathed to the college by Sir F. Burgeois, in 1811.

DUMB-BELLS, *dum'-bells*, two weights, made so as to be easily grasped, used for purposes of exercise. They are made of various weights, varying from about 8 lbs. to 28 lbs.

"DUNCIAD, THE," *dun'-she-ad*, a satire originally written in three books, by Alexander Pope, in 1728; he however added another book in 1742. For a considerable period Pope had suffered from the attacks of a number of critics and detractors, who not only denied his genius, but attributed to him the basest and meanest of motives. Unable to bear these attacks any longer patiently, and stung to the quick, he determined to strike out in every direction at his antagonists, and the Dunciad was the method by which he achieved his end. Critics, authors, publishers, *et hoc genus omne*, winced and howled as the stinging lash of his satire fell right and left among them, and wherever it fell it drew blood. He recriminated, and chastised in terse epigram and not over-delicate satire, everyone by whom he thought he had been aggrieved, and immortalized his antagonists as he demolished them. Even now, although all the *dramatis personæ* are passed away from the scene, the Dunciad can still be read with interest as a model of polished verse and keen pungent satire.

DUNGEON. (See DONJON)

DUNMOW FLITCH, *dun-mo'*, a singular



PYRAMIDS.

SPHERE.

MULTILATERAL PYRAMIDS.



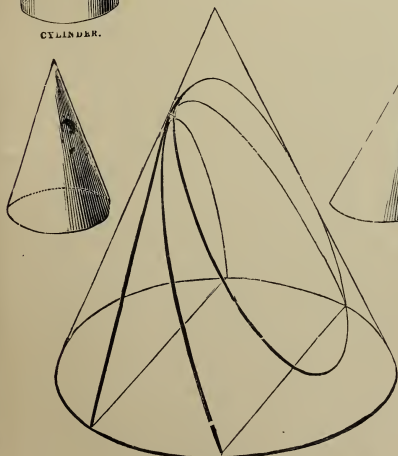
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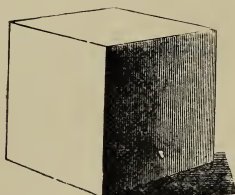
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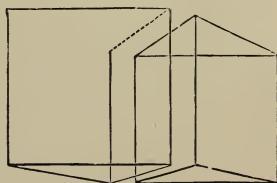
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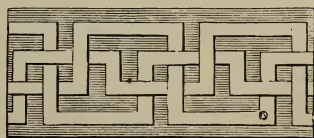
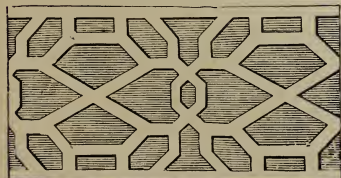
CONES AND CONIC SECTIONS.



CUBE.



TRIANGULAR PRISMS.



GEOMETRIC ORNAMENTS.

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custom instituted at Dunmow, in the county of Essex, in 1244, by Robert de Fitzwalter. Its object was the bestowal of a prize on a man and wife who had lived without quarrelling, on the following conditions:—"That whatever married couple will go to the priory, and kneeling on two hard pointed stones, will swear that they have not quarrelled nor repented of their marriage within a year and a day after its celebration, shall receive a fitch of bacon." The first prize was not claimed till two hundred years after the institution of the prize and the only instances recorded of the award of the fitch at the Priory occurred in 1445, 1467, 1701, 1751, and 1763. Some attempts have since been made by private persons to revive the custom, which was made the occasion of a display in the Town Hall of Dunmow, and fitches were given away in 1873, 1876, and 1877.

DUODECIMO, *du-o-des-e-mo* (Lat., *duodecim*, twelve), a term applied to a book when every sheet is folded six times, so as to make twelve leaves, or twenty-four pages. It is usually abbreviated into 12mo.

DURHAM UNIVERSITY, *dur'-am*, dates its origin only from 1832, when a bill was introduced into Parliament to enable the dean and chapter of that see to appropriate an estate at South Shields for the establishment and maintenance of an university for the advancement of learning in connection with the said cathedral church, the late Bishop Van Mildert engaging to provide eventually for the warden, the professor of divinity, and the professor of Greek, by attaching prebendal stalls to the several offices. Under the authority of this act, the university was opened in 1833, and in 1835 a statute was passed by the dean and chapter, and approved by the bishop, intrusting the ordinary management of the university, under the bishop as visitor, and the dean and chapter as governors, to the warden, a senate, and a convocation. A royal charter was granted under the great seal on the 1st of June, 1837, incorporating the persons therein described by the name of "the warden, masters, and scholars of the university of Durham," and granting them "all the rights and privileges which are assumed to the university by the act of parliament, or incident to an university established by royal charter." It consequently possesses the right of granting degrees. By an order of her Majesty in council in 1841, it was provided that the office of warden should in future be permanently annexed to the deanery of Durham; a canonry in the cathedral church was annexed to each of the professorships of divinity and Greek; the professor of mathematics was appointed professor of mathematics and astronomy, with an increased salary. It was also provided that a professorship of Hebrew and the other Oriental languages should be founded; and, in addition to the six fellowships which had been established by the dean and chapter, eighteen others were to be founded. Certain additional estates were assigned to the university for this purpose. A college was formed within the university, and buildings fitted up for the reception of students, and censors and tutors appointed to watch over their conduct and direct their studies. These accommodations were subsequently much enlarged, especially by the addition of Durham Castle and its precincts. A new hall called "Bishop Hatfield's Hall," was opened in 1846,

and enlarged by an additional building in 1849. Another hall, called "Bishop Cosin's Hall," was opened in 1851. In 1837, the benefits of the university were extended by the establishment of a course for students in civil engineering and mining; and in 1852 additional facilities were given for students in medicine. In 1874, a college of physical science, founded in 1871 at Newcastle-on-Tyne, was formally incorporated with the University; and, in 1875, Codrington College, Barbadoes, and, in 1876, Fourah Bay College, Sierra Leone, were affiliated to the University.

Government of the University.—By the ordinances of the University Commissioners, of date 30th June, 1862, the Bishop of Durham is the visitor of the university, and the Dean of Durham the warden—the latter exercising a general superintendence over the university, and convening the senate and convocation. The senate consists of the warden, professors, proctors, and tutors, and manages the property, maintains the discipline, directs the studies and examinations, and transacts the business of the university. The convocation consists of the wardens, professors, and tutors, and such persons as shall have proceeded to the second degree in the university; and has powers to confirm or reject what is submitted to it by the senate, but has no power to originate or amend. The visitor has the appointment of the professors to whose professorships canonries are annexed, and the senate appoints all the other professors and all the tutors. To those professors not connected with canonries a fixed salary of £300 per annum is annexed, and the tutors each have a salary of £250.

Students.—Students are of two kinds—matriculated, whose names are placed on the register of the university, and non-matriculated—such as have the permission of a professor to attend his lectures without his name being on the register. The matriculated student must reside within the precincts of the college, or of some licensed hall or house, unless dispensation be granted to reside elsewhere; and previous to matriculation he must state to what school he proposes to belong, and pass an elementary examination adapted to the studies of such school. No student who is not a member of the Church of England is required to attend the services of the church, and no religious test or subscription is required from any member of the university.

Degrees.—The degrees are granted in three separate schools, viz.: 1, Arts, classics, and mathematics; 2, theology; 3, physical science. No matriculated student is required to keep more than four terms in order to proceed to the degree of bachelor in any of the three schools; and a graduate in any one of the three schools may, after an interval of three years, if he keep his name on the register of the university, proceed to the second degree in the same school. Forty open scholarships of £30 a year, each tenable for two years, are open to all persons, whether members of the university or not; but no member of the university shall be entitled to compete who shall have been a member longer than one month. There are also 40 scholarships of £50 a year each, open to all students commencing their second year, and tenable for one year; but, on the student graduating in one school and becoming a student in some other, may be held for a second year. The scholarships are distributed between the three schools in proportion to the number of students at each respectively, excepting that not more than one-third in number and value of them shall be held at any one time by the scholars in the school of physical science. There are also certain private scholarships, varying from £20 to £1000s. each, also tenable for two years, given to such persons as have most distinguished themselves in the examination for the university scholarships of £30 a year, and who are students in the school of arts. There are other private scholarships of from £25 to £10 a year each, given to such students of theology as have most distinguished themselves in the examination for the £30 scholarships.

DÜSSELDORF SCHOOL OF PAINTING, *doos'-sel-dorf*.—In 1767, Prince Charles Theodore of Prussia established the "Düsseldorf

Academy, and in 1819 the famous painter Cornelius was appointed director, a position he filled for seven years. Under him and his successor, Von Schadow, the Academy gained a great reputation, and some of the students acquired great distinction. The names that make this period in the history of German art, in the eyes of Germans at least, a modern Renaissance—Koch, Overbeck, Veit, Schnorr, Von Schwind—are most widely known by the frescoes with which they adorned so many palaces, villas, churches, and public buildings in Rome, Munich, and Berlin. Their chief influence outside Germany has been in America. The Düsseldorf school was early divided into two parties, the Catholic and the Protestant. The former sought to restore the ancient exclusive devotion of art to religion, chiefly Roman Catholic subjects. The other party painted all subjects, landscape, genre, historical and religious, having, however, a strong leaning to the Protestant side.

DUTCH LANGUAGE AND LITERATURE.

—The language spoken by the inhabitants of the Netherlands, and so closely allied to the Flemish that, in their earlier forms at least, the two may be considered as one and the same tongue. It belongs to the Aryan, or Indo-European, family of languages (*see* LANGUAGES), and to the Teutonic sub-division of that great family. It is one of the most important links connecting the English language with the German, and also bears a very close relationship to the Lowland Scotch. (*See* GERMAN LANGUAGE AND LITERATURE.) The alphabet consists of 23 letters, counting *ch*, a guttural sound. The Dutch nearly resembles the German in the inflections of the nouns and verbs, and in the construction of the sentences, as well as in many of its words; but, owing to differences of orthography, the resemblance of words is often much greater in reality than appears to the eye. Foreexample, the Dutch *zijn* and the German *sein*, to “be,” have not only the same meaning, but precisely the same pronunciation. There are, in regard to certain letters, changes that very frequently, if not invariably, take place when a word passes from the German to the Dutch. Thus the German *au* becomes in Dutch *o*, *oo*, or *ai*; and *ei* is changed into *ee* or *ij*. The consonant *f* generally becomes *p* in Dutch and *b*, *v*. Space will not permit the multiplication of instances; but it may be noted that almost invariably where the Dutch consonant differs from the German, it corresponds to the English, whenever there is any English word at all resembling either. The first development of the vernacular literature of the Netherlands was Flemish rather than Dutch. (*See* FLEMISH LANGUAGE AND LITERATURE.) The development of what may be strictly termed Dutch literature, as distinguished from the Flemish, may be said to date from about 1570, when a kind of literary academy, *Rederijks Kamer* (“chamber of rhetoric”) was established at Amsterdam, under the auspices of Coornhert, Spiegel and Visscher. Other, but less important, societies, assuming a similar name, had previously been formed for the purpose of holding literary competitions and giving theatrical representations. Cornelius was a writer of moral and theological treatises and poetry; and the great poem of Spiegel, the *Hartspiegel*, is ethical. Early in the 17th century, Peter Kornelius Hooft, described as “the illustrious head (a play on his surname) of the Dutch poets,” gave a sweetness and harmony be-

fore unknown to Dutch speech, and excelled also as a writer of history. At a later period Jacob Cats, “Father Cats,” was emphatically the poet of the people, and contemporary with him was Joost Van den Vondel who excelled in satirical and lyric poetry, and occupied the highest place in the Dutch literature of his time. About the same time Coster, Van der Neugrelant, C. Van Huygens, and J. de Dekker were dramatists and poets of considerable talent. In the early part of the 18th century, Van Effen, a graceful writer of prose, imitated the style of Addison, but the influence of French literature was largely, and not advantageously apparent. A new poetical era commenced in the latter part of the century, and Bellamy produced some charming ballads. The astronomer P. Nieuwland produced a stately epic, *Orion*. Two female novelists, A. Deken and E. Bekker, produced some amusing representations of Dutch life and manners. Among the historians of this period distinguished by their industry were Wagenaar, Van Loon and Van Khit. Bilderdijk, one of the greatest of Dutch poets, and distinguished in almost every department of literature, lived between 1756 and 1831. H. C. Tollens, a contemporary, was also an admirable poet. The modern revival of Dutch literature is coincident with the French revolution. We cannot attempt to enumerate all the authors of reputation. In the present century, D. J. Van Lennep has written historical romances in the style of Walter Scott, and the influence of Byron was also apparent, without any servile copying of either. Bogaen and Van Der Hage also distinguished themselves in the same field. The Dutch writers now fairly hold their own in every department of general literature. Among the prominent of living or very recently deceased authors are Van Vloten, Dr. Nott, Nugens, De Jonge, and Pierson in theology and history; Buske Huet in essays and light critical literature; De Chanteleux, Beets, Ter Haar, Lovendaal, Mallinckrodt, and G. Jonckbloet, in poetry; as novelists, De Veer, Otto, Brunings, Cremer, Ter Burch, and Perslaer.

DWARF, *dwaarf* (Sax., *dwerg*, *dwerg*), in general language, a term applied to those human beings who are less in height than the average of their species. In a more restricted sense the word dwarf is applied to those cases in which there is a uniform arrest of growth. Among the ancients there was a general belief not only in the existence of dwarfs of great minuteness, but also in the existence of nations composed exclusively of them. The most extravagant assertions on the subject were made by ancient writers, even of the rank of Aristotle and Pliny. Among the legends of the Scandinavians, the dwarfs occupy a conspicuous place. They are crafty, cunning elves, skilled in magic and in the working of metals. From the belief that dwarfs were more inclined to assist ordinary mortals than to further the ends of the giants, they began to be looked upon as being well disposed towards man: they were supposed to appear at strange moments, instructing him how to change ores into metals; and it was also believed that they took charge of the development of seeds and fruits. From these ideas probably arose the widely-spread and still existing belief in fairies and other diminutive beings, supposed to be favourably disposed towards certain members of the human race. (*See* FAIRIES.) Many so-called dwarfs, averaging from three to three feet

six inches in height, have been recently exhibited; but the most remarkable of modern dwarfs are certainly the male and female known as the "American Midgets," recently exhibited.

Dwarf Plants.—In Japan, by a method of cultiva-

tion which checks the flow of sap, trees and plants of a very small size are produced, and sometimes produce abundant flowers and fruit. They are grown in shallow pots, the strongest shoots are pinched off, and they are scantily supplied with water. Small plants of this kind are favourite ornaments for houses and gardens.

E.

E is the fifth letter and second vowel of the English language, and it has a greater variety of sounds in English than in any other tongue. It is formed by a narrower opening of the glottis than the letter *a*, but the other parts of the mouth are used in nearly the same manner. It has a long and a short sound in most languages, and among the Greeks there were different letters for expressing the long and short *e* (the *epsilon*—*ε*, and the *eta*—*η*). **E** has a long sound in *here*, *me*, and is short in *met*, *men*. It has also the sound of *a* open or long, as in *there*, *prey*. It is very obscure in *heaven*, *oxen*, *bounden*. As a final letter it is generally silent, but serves to lengthen the sound of the preceding vowel, or, at least, to indicate that the preceding vowel is long. After *c* and *g* the final *e* serves to indicate that the *c* is to be pronounced like *s* and the *g* like *j*. In French, *e* is pronounced in three different ways—the *è ouvert*, *é fermé*, and *e muet*. In German it is long, like the English *a* in *fate*, *in reden*, *predigen*; short like *e* in *met*, *in recht*, *rennen*; and very short, or almost silent, in *hoffen*, *haben*. Among the ancients, **E**, as a numeral, represented 5 and also 250.

In the Calendar, **E** is the fifth of the dominical letters; and in sea charts it distinguishes all the easterly points. (See ABBREVIATIONS.)

In Music, **E** is the third note or degree of the diatonic scale, answering to the *mi* of the Italians and French.

EAGLE, *eej'-l*.—In Heraldry, the eagle is the emblem of dominion, as well as of courage and magnanimity. It is generally borne with extended wings and legs, or "displayed," as it is technically termed.

EAR-RING, *eer'-ring*, an ornament worn suspended from the lobule of the ear, which is bored for the purpose of receiving a thin gold wire to which the ornament is attached. From passages in Jeremiah, it appears that they were much worn by the Hebrew women in his time; and decorating the person with ear-rings has always been a favourite custom among all Eastern nations. Among many nations they were worn both by men and women; but it has been an especial female ornament in nearly all ages and in all countries. Homer speaks of Juno as being adorned with ear-rings, and the statue of the Venus de Medici has the ears pierced for rings. Amongst the Greeks and Romans ear-rings were much worn; and during the decline of the Roman empire the most costly and brilliant jewellery was worn in the ears of the Roman ladies. Pearls were the principal jewels employed; but diamonds, rubies, and sapphires of great value, were also worn. Amongst the Egyptians ear-rings were much worn, many beautiful specimens of which are to be seen in the British Museum. In England, during the reigns of Queen Elizabeth and James I., ear-rings were worn by men as well as women. Shakespeare makes Romeo say of Juliet, "Her

beauty hangs upon the cheek of night, like a rich jewel in an Ethiop's ear." At the present day, in England, women alone wear ear-rings.

EARLY ENGLISH, *er'-le* (Ang.-Sax).—This style of Gothic architecture, known also as the First Pointed style, may be considered to have prevailed in England from 1189 to 1307, or during the reigns of Richard I., John, Henry III., and Edward I., and to have reached its fullest development about the middle of the 13th century. In this style the strength and solidity of Anglo-Norman architecture was retained, but it was softened and subdued by the introduction of more graceful forms and a greater degree of enrichment. The heavy massive Anglo-Norman columns were replaced by lighter and more elegant shafts, having the appearance of a series of small columns clustered together round a central mass, and the semicircular arched head to the doors and windows was replaced by one of a pointed or lancet-shaped form. Sometimes two or three of these pointed lights were grouped together, separated only by narrow piers. When three were thus brought together, the centre light was considerably higher than those on either side, and in any case a continuous moulding surmounted the whole of the arches. In the latter part of this period two or more lancet-pointed windows were often surmounted by an arch of the same form, pierced with a cusped circle, or with trefoils and quatrefoils, and this led to the elaborate tracery that marks the windows of the Decorated period. The doors were deeply recessed, and the sides of the splay were adorned with deeply-cut mouldings; they were also surmounted with a dripstone or moulding projecting from the wall, and springing from carved heads or corbels. The buttresses were narrow, but projected to a great distance from the walls; they were also divided into two or three stages, each projecting less than the one immediately below it. Flying buttresses were also introduced, and string-courses were commonly used. The walls were ornamented with diaper-work, the surface being carved or painted with a small regular pattern, generally of trefoils or quatrefoils. The capitals of columns were bell-shaped, swelling outwards from the shaft, with an horizontal section similar to that of the shaft itself, and sometimes they were carved with foliage boldly rendered. The roofs were steep, and for the most part open; some, however, were vaulted and groined. Salisbury Cathedral is considered the best example of this style of architecture, as it belongs wholly to the Early English period, and no other style is consequently found in combination with it. Parts of Westminster Abbey, Lincoln, Wells, and Hereford cathedrals, and York Minster, are also built in this style.

EARTH HOUSES, recesses in the earth, so called in Scotland, which seem to have been small natural caverns, or artificial chambers hollowed out to serve as a hiding-place in time

of war for men and property, or as storehouses for corn and provisions for the winter. In some parts of Scotland these receptacles are popularly known as Picts' houses. They are generally long and narrow in form, the largest being about 10 feet wide, 50 feet long, and 6 or 7 feet high. The sides are formed by a wall of rough stones, and the earth above is sustained by a ceiling of undressed slates or flag-stones, the ends of which are supported on the side walls. The entrance is small and near the top, and constructed in such a manner that it could be easily masked if necessary. When the floor was wide, the walls were brought closer together at the top, by allowing each tier of stones to project beyond the one below it, until the interior assumed somewhat of the form of a vaulted passage. They are not far below the surface of the earth, and are generally found in dry situations in the side of a hill or rising ground. Remains of various kinds have been found within them, which shows that they were used as temporary retreats, if not as permanent places of abode. Occasionally two or more chambers are found communicating by a small passage. Some of the chambers are circular in shape, with domed roofs. (See BEEHIVE HOUSE.)

EARTH-WORKS, in Fortification, entrenchments hastily thrown up, consisting chiefly of a rampart and ditch, and serving as temporary lines of defence.

EASEL, *é-zel* (Ger., *esel*, an ass), a frame on which a painter supports the canvas on which he is working, in a slightly slanting position. It consists of three long legs connected by hinges at the top, which extend and form a tripod. Holes are bored in the faces of the two legs against which the painting rests, in which pegs are inserted, which support the picture, and afford the means of raising or lowering it to the height and position that may be desired.

Easel Pictures, among painters, are the smaller pieces which are painted on the easel, as distinguished from those which are drawn upon walls, ceilings, &c.

EAVES, *eevz* (Sax., *yfes*), that portion of a roof which projects over and beyond the face of a wall, to carry off the rain and prevent it from trickling down its surface and rendering it damp.

EAVES-DROPPERS (Ang.-Sax.), in Law, are such as listen under walls or windows, or the eaves of houses, to hearken after discourse, and thereupon to frame slanderous or mischievous tales. Such persons are regarded as a common nuisance, and may be indicted at the quarter sessions, and punished by fine, and obliged to find sureties for their good behaviour.

EBB, *eb* (Sax., *elbe*), the reflux or return of the tide towards the sea after high water; opposed to flood, or flowing.

ÉCARTÉ, *ai-kar'-tai*, a game of cards for two persons. It is played with thirty-two cards, the small cards from two to six being excluded. The king, not the ace, is the highest card. Five cards are dealt to each player, and the eleventh card is turned up as trump. Three tricks count one point, five tricks (*vole*) two points; and five points make a game. The speciality of the game, from which it derives its name, is that before beginning to play, the new dealer may discard (*écarté*) his cards, and have others from the pack.

ECCE HOMO, *ék-se ho'-mo* (Lat., behold the man), a term in Art applied to those pictures which represent Christ wearing the crown of

thorns, and bound ready for execution. Some of the greatest painters have employed their highest efforts upon this subject. The finest *Ecce Homo* in existence, without doubt, is that painted by Correggio, and now in the National Gallery in London. In this magnificent picture the noble features of the countenance of Christ express the utmost pain without being disfigured by it.

ECHELON, *esh'-lon* (g) (Fr., *échelle*, a ladder).—Bodies of troops are said to be formed in echelon when the front of each body is in a line parallel to the fronts of the remainder, but the body itself occupies a position either to the rear of that which is immediately on its right, and in advance of that on its left, or *vice versa*, according as the movement which follows the formation is to be to the right or left. Each body has its front clear of that which is in advance of it, so that the whole can be brought into the same alignment by marching forward. It is used in attack and retreat, and especially by cavalry in charging the enemy's troops. It is also an easy and expeditious method of changing the front of a regiment drawn up in line and bringing it into a new position that is in an oblique direction to that which it has just quitted. The most simple illustration of this formation is the zigzag outline presented by a flight of stairs or steps; whence it derives its name. The word is also sometimes used in connection with naval manœuvres.

ECHINUS, *ék-i'-nus*, a moulding, sometimes called the ovolo or egg-shaped moulding. It consists of a series of oval bosses in a vertical position, projecting from the face of the moulding, and sometimes separated by a line, terminating in a triangular head, like a broad arrow.

ECLOGUE, *ek-log'* (Gr., *ekloge*, a selection), denotes literally a selection of pieces out of various works, or a collection of the choice pieces of an author; but, from being a name given to the pastoral poems of Virgil, it has since come to be generally applied to that species of poetry. The eclogues of Virgil are of various descriptions, only some of them having the true character of pastorals; others contain occasional poems on public and private events of the day, but slightly enveloped in the pastoral costume. The terms eclogue and idyl, in their primary signification, denote the same thing; but custom has made a difference between them, and appropriated the name of eclogue to pieces wherein shepherds are introduced speaking, and idyl to those written in a simple natural style, like the eclogue, but without any shepherds in them.

ECOLE POLYTECHNIQUE, *ai'-kole pol-e-tek'-neek* (Fr., *école*, school; Gr., *polus*, many, *techné*, an art), a military school established in Paris in 1794, under the name of *Ecole Centrale de Travaux Publics*, or central school of public works, for the purpose of educating young men for the profession of arms and civil engineering. The project was originally set on foot by M. Lamblardie, director of the *Ponts et Chaussées*, which are under the control and superintendence of the government in France, and carried out by him with the aid of many eminent Frenchmen of that day. In the course of the following year a more extended course of military study was adopted. The pupils were distinguished by a uniform, and the name of the establishment was changed to the more comprehensive title of *Ecole Polytechnique*, which it still bears.

ECORCHÉ, *ai-kor'-shai* (Fr., *écorcher*, to skin or flay, from Lat., *corium*, a hide, or *cortex*, bark), the name given to drawings or a figure used by artists in the study of anatomy, in which the muscles are exposed to view by the removal of the outer skin. In parts of the figure the upper muscles are also removed, to exhibit those that lie nearer the bone.

ECORCHEURS, OR **FLAYERS**, *ai-kor'-shure*, bands of armed men who desolated France and Belgium in the 15th century. At one time they numbered 100,000. The name was given on account of their cruelties.

ECSTATICI, *eks-tat'-e-si* (Gr., *ekstastikoi*, from *existemi*, I am entranced), Greek diviners who were cast into trances or ecstasies, in which they lay as if dead, but who, on recovering their senses, gave strange revelations as to what they had seen and heard.

EDDA, *ed'-da*, a term applied to several Scandinavian songs, supposed to have been collected and arranged by Sæmund Sigfusson, surnamed Frodi, an Icelandic priest, who was born between 1054 and 1057, and died in 1133. These songs were first discovered and brought to light in 1643, by Brynjolf Svendsen, bishop of Skalholt, who gave them the name of *Edda*, or "grandmother." There are, however, two works which bear the title—the "*Edda Sæmundar hins Froda*," or the *Edda* of Sæmund the Wise, and "*Snorri Sturleson's Edda*." Of these two *eddas*, the former is the most ancient, the date of its production being usually attributed to a period between the 6th and 8th centuries. The *edda* of Sæmund the Wise was published entire at Stockholm, in 1818, in 8vo. A complete edition of this *edda* was also published by Professor Munch, at Christiania, in 1847, and another in 1859, by Möbius. In 1851 a German edition of both *eddas* was produced by Simrock. Snorri Sturleson's *edda* is a prose composition, and treats especially of Scandinavian mythology, and also of the language and literature of the ancient Scalds. In the first, or poetical *edda*, the detached poems attempt to shadow forth a religious system. Many of the poems were evidently written before the introduction of Christianity; but the collection was probably made after the Christian era. The belief in the destruction of the world is apparently derived from Christian sources; and in the very beginning of the *edda* the germs of one all-destroying catastrophe are presented, which involves not only the destruction of the universe, but also holds out the promise of a resurrection and a happier existence in an abode of bliss. The elder *edda* consists of thirty-seven poems of various degrees of poetical merit, all relating to Scandinavian mythology. The later *edda* is divided into two books—"Gylfaginning," or the Fascination of Gylfa, a story similar to that of "Vafthrudnismal," in the elder *edda*. The second part of the later *edda* is called "Bragar-sedhur," or the Discourse of Bragi, borrowed from the "Oegirsdrecca," or the Drinking-feast of Oegir. In this part, Bragi, the Scald of the Gods, discourses upon the origin of poetry. (See SCANDINAVIAN MYTHOLOGY.)

"**EDINBURGH REVIEW**," THE. A famous critical quarterly publication devoted to literature and politics. It was started in October, 1802, by a few young men living in Edinburgh, some of whom afterwards attained to eminence, especially Francis Jeffrey, Sidney Smith, Francis

Horner, and Henry Brougham. They were all poor and worked hard to establish the publication, Sidney Smith at first acting as editor. It was printed in Craig's Close, and there the contributors met by stealth, by "back-approaches or different lanes," not wishing to have their connection with the Review made public. About 1,500 copies of the first number were sold at once, and other editions were called for. The notices of the books were brief, and written in a pungent satirical style. In five or six years the circulation had reached about 9,000. The first publisher was Mr. Constable. In course of time, the short reviews developed into long essays written by some of the most distinguished writers. Macaulay's famous literary and historical essays appeared first in the "Review," to which Sir James Macintosh was also a frequent contributor. Brougham was the author of the famous slashing of Byron's juvenile poems, "Hours of Recreation," which produced the vigorous satirical reply, "English Bards and Scotch Reviewers," which first revealed the genius of Byron. Jeffrey was editor for many years, and after him came Mr. Reeve and Mr. Macvey Napier. In politics, the Review has always strongly advocated Whig principles, and the blue and yellow covers of the number represent the Whig colours.

EDINBURGH, UNIVERSITY OF.—

The University was founded in 1582, by James VI.; but it originated in a bequest made five-and-twenty years before, by Robert Reid, Bishop of Orkney, and further funds had been provided by grants of confiscated Church property made by Queen Mary. The lord provost, magistrates, and town council of Edinburgh were constituted patrons and governors of the university. At first there was but one class, with one teacher, Robert Rollock, the first regent; but development of the plan was soon required. In 1621 an Act was passed by the Scottish Parliament which ratified to this university, in ample form, all the rights, immunities, and privileges enjoyed by the other universities in the kingdom; and this ratification was renewed in the treaty of union between England and Scotland, and in the Act of Security. In the beginning of the 17th century, the business of the university was conducted by a principal, who was also the professor of theology, and four regents, who conducted the youth through the course of study necessary to obtaining a degree in arts. Each regent conducted his students through the entire course, teaching them in succession logic, ethics, and physics, with the kindred literary and mathematical studies. In 1642 the chair of theology was instituted, in 1674 that of mathematics; in 1685 that of medicine, in 1690 that of Greek, and in 1695 that of church history; in 1707 the foundation of the faculty of law was laid by the institution of a chair of public law, followed in a few years by chairs of civil and Scotch law. In 1708 the present professorial arrangement in the faculty of arts was substituted for the previous regent-tutors system. Since that time a number of new chairs have been added to all the faculties; and there are now 35 professors.

Governing Body.—From its foundation, in 1582, until 1858, the government of the university was in the hands of the magistrates and town council of Edinburgh; but it was taken from them by an Act of Parliament in 1858, and placed in the *Senatus Academicus* and the University Court, in connection with a general university council. The patronage of those chairs, which had been previously in the gift of the town council, was by the same Act transferred to seven

curators—three nominated by the University Court and four by the town council, and hold office for three years. The offices of chancellor, vice-chancellor, and rector were also instituted. The chancellor is the official head of the university, is elected by the general council, and holds office for life. The vice-chancellor is nominated by the chancellor, and performs his duties in his absence. The rector is elected by a general poll of the matriculated students of the university. He is president of the University Court, and holds office for three years. The University Court is composed of the rector, principal, the lord provost of Edinburgh for the time being, and five assessors, elected respectively by the chancellor, the rector, the town council of Edinburgh, the general council, and the senatus. The rector and his assessor continue in office for three years, the other assessors for four. It constitutes the court of appeal from the *Senatus Academicus*, and has the power to effect improvements in the internal arrangements of the university, after due consideration with the senatus and council, and with the sanction of the chancellor. The principal is resident head of the college and president of the senatus. He is appointed by the curators, and holds office for life. The principal and professors constitute the *Senatus Academicus*, which is intrusted with the superintendence and regulation of the teaching and discipline of the university, and with the administration of its revenues and property. The general council of the university consists of the chancellor, rector, and other members of the University Court, the principal and professors, masters of arts of the university, doctors of medicine of the university who have, as matriculated students, attended classes in any of the faculties for four complete sessions, and all who have established, within three years of the passing of the Universities Act (2nd August, 1858), that they had attended the university as matriculated students for four sessions, or three sessions and a fourth in some other Scottish university. The number of members of the general council is about 2,300. They meet twice a year, in April and October, to take into consideration all questions affecting the well-being and prosperity of the university, their decisions being represented to the University Court, who are to return a judgment thereon.

Faculties and Professorships.—The chairs of the university are comprehended in the four faculties, the affairs of each faculty being superintended by a dean, who is elected by the professors of the faculty. The *faculty of arts* comprehends the chairs of humanity, Greek, mathematics, logic and metaphysics, moral philosophy, natural philosophy and rhetoric, and English literature; also universal history, practical astronomy, agriculture, music, and Sanskrit; attendance on the first seven of which is required for the degree of master of arts. The *faculty of theology* has chairs of divinity, Hebrew, ecclesiastical history, and biblical criticism and antiquities. The *faculty of law* has chairs of public law, civil or Roman law, and conveyancing. The *medical faculty* comprehends chairs of botany, institutes of medicine, practice of physic, anatomy, chemistry, midwifery, natural history, materia medica, clinical surgery, medical jurisprudence, surgery, and general pathology.

Sessions.—There are two sessions in the year—the winter session, which opens in the beginning of November and ends with April, and the summer session, which opens in the beginning of May and ends with July, the latter being almost entirely confined to the medical classes.

Degrees and Honours.—The ordinary course of study necessary for the degree of M.A. extends over four winter sessions; and candidates for that degree must be examined on all the seven subjects of instruction embraced in the above course of study; and the examinations may be conducted partly in writing and partly *vis à voce*. Students who have passed satisfactorily the examinations for M.A. may, before taking the degree, offer themselves for a further examination, with a view to graduation with honours. There are four departments for honours—viz., classical literature, mental philosophy, mathematics, and natural science, in any one or more of which students may present themselves for examination. There are three medical degrees conferred by the university—viz., bachelor of

medicine (M.B.), master of surgery (C.M.), and doctor of medicine (M.D.).

Scholarships and Bursaries.—The total number of bursaries and scholarships connected with the university is 108, and the annual value is about £1,800. They are mostly for the faculties of art and theology, are generally of small amount, and in the patronage of the senatus, town council, or of private individuals. There are 23 scholarships, varying in value from £30 to £100 yearly.

Library.—The university library contains about 130,000 printed volumes, and about 700 MSS., many of which are of great interest and value. It originated in a bequest of about 300 volumes by Mr. Clement Little, in 1580, and was subsequently largely augmented by donations from various persons; among others by the celebrated Drummond of Hawthornden, who bequeathed his library to it. It was formerly entitled to a copy of every book entered in Stationers' Hall, in lieu of which privilege it now receives a sum of £575 per annum.

Museums and Botanic Gardens.—The museum of natural history was established in 1812—a great part of it having been collected by the exertions of the late Professor Jameson. It received a government grant of £200 per annum; and in 1854 was transferred to the new Museum of Science and Art, where it forms a national history department, of which the professor of natural history is the regius keeper. The anatomical museum was founded in 1800 by Dr. Munro who presented his own valuable anatomical collection and that of his father to the university. The Royal Botanic Garden in connection with the university was founded in 1670, and extends to seventeen acres, having an extensive range of greenhouses and hothouses, with a large palm-house. There are also several private museums or collections in connection with some of the classes.

Parliamentary Representation.—One representative is shared with the University of St. Andrews.

EDITION, *e-dish'-un* (Lat., *edo*, I give out or publish), is the number of copies of a work that are printed at one time. The number of copies of a work that may constitute an edition are hence very various, depending in a great measure upon the sale which it is expected to have. A second edition means another printing; a new edition generally means an issue of the work in another and revised form. Thus, "popular" editions and "cheap" editions of standard works are announced. In a bibliographical point of view, some editions of books are much more valuable than others. Generally speaking, the last edition of an author's work is the best, as containing his latest improvements; but in some cases circumstances give a greater value to earlier editions, or sometimes the first. Second, third, fourth, fifth, and "special" editions of newspapers are issued, each containing items of news received since the publication of the first edition.

EDITOR, *ed'-it-or* (Lat., *edo*, I publish), is one who edits or prepares for publication the writings of another; or superintends the production of a book to which various writers contribute. We may distinguish two classes of editors;—1, those whose object is merely to reproduce the works of another in their purity, and content themselves with adding notes or commentaries to the text; and 2, those who have the general superintendence of some large literary work, encyclopædia, magazine, newspaper, or the like, receiving contributions from various persons, which they may have to correct, cut down, supplement, or reject, according to their character and the general plan of the work. In the former case, the editor requires to be a man of great learning, taste, judgment, and exactness,

and to have a full appreciation of his author, having to judge critically of the various readings, to explain the obscure passages, and supply omissions and references. In the latter case the qualifications require to be of a much more general and varied kind. Here a full and comprehensive view of the whole work is required, as well as an acquaintance with all its minor details, and the bearings of each upon the whole. Generally, a minute and accurate knowledge is necessary on a vast variety of subjects, and a readiness and full command over them, so as at once to be able to bring them to bear upon any particular point. A knowledge of the technicalities of printing is also valuable. Business tact and a quick and accurate perception of the tastes of the reading public are very necessary qualifications for the editor of a newspaper or other periodical work.

EDUCATION, *ed-u-kai'-shun* (Lat., *educō*, I lead, or bring out or forth). Education, as distinct from instruction (an imparting from without), may be defined to be the full and harmonious development of all the powers and capacities of man,—full, that is, each to the highest point of which it is capable; and harmonious, each in complete unison with all the rest. In other words, it is the bringing of his entire nature into the highest state of perfection of which it is susceptible. As ordinarily understood, education and instruction are almost synonymous terms (although strictly distinct), and the final development is a combination of both processes, the strengthening of the faculties to receive and mentally digest the knowledge received through the medium of instruction. There can be, indeed, no education without some instruction, but there may be a great amount of instruction with very little education. The best educated man is not he that *knows* most, but he that *can do* most. Bacon has well said that men are apt to set too high a value upon their acquirements and to undervalue their faculties. There is, in fact, a mutual influence exerted by education and instruction. Good education, or preliminary training, in the powers of perceiving and reasoning, makes instruction an easier process; and receiving instruction strengthens the faculties as regular exercise strengthens the body. Our physical nature plays a much more important part in the animal economy than is generally believed or acted upon in education. The brain, which is the organ of the mind, is a part of our physical constitution, subject to physical laws, to disease and decay, requiring exercise to develop it, and a due supply of arterial blood to maintain it in a state of health. It is important for the educator to know that he is not, in the performance of his duties, dealing with incomprehensible spirit moving in another sphere, and the laws of whose operations it is impossible for him to divine; but that the spirit is strictly limited, and subject to the laws of matter; that it is in obedience to these laws that its operations are carried on, and that, however mysterious some of its workings may seem to be, they are all the result of causes which he ought to strive to find out. The great law in education, mental or physical, is *exercise*. If we want to develop a muscle, we exercise it; if we want to improve a faculty, we must, in like manner, exercise it. In the one case, as in the other, the exercise must be proportioned to the strength of the individual, and every period of exercise should be succeeded

by a time of rest. While the two elements of man's nature are concerned in every act, some partake more of the one, and others of the other; and hence we have the common division of them into physical and mental acts, the former comprising the outward acts of the body, the latter mental thought and feeling; according to which we have a twofold division of education, into physical and mental. Of physical education, which deals with the proper development of the physical powers, it will not be necessary to say much. It is, indeed, a subject of the utmost importance, and entitled to much more attention than it has yet received, as it is not only upon it that the health of the body mainly depends, but it is by it that the body is made the ready, willing, and obedient servant of the mind. Its object ought to be to impart strength, dignity, and grace to every movement of the body. The value of correct habits formed in early life, whether they may be useful accomplishments, a graceful deportment, correctness of pronunciation, or any kind of manual dexterity, continues to be felt throughout the course of one's life. Mental education has to do with the mind of man, and ought to be based upon a knowledge of that portion of his nature. The mind is that which feels, thinks, and acts, or is characterised by feeling, thought, and action. The first of these comprises not only those feelings and impressions that are communicated through the senses, but also the emotions and moral feelings, and generally all such as arise from states of the mind itself. In thought, the mind turns itself in upon those feelings, reasons of them, judges of them, arranges and compares them. In the last of these we have the active principles of the mind, or those that propel it into action; as the desires and the will. There are two kinds of actions; either passing outwards through the body, or inwards, directing the thoughts, calling up ideas, and forming conceptions. Here again we would caution against the error of regarding the mind as consisting of distinct and independent faculties, and not as one entire and united whole. All our intellectual processes so completely interpenetrate each other, that it is impossible to separate them into distinct faculties and assign provinces to each. Everything ought to be done to strengthen by gentle means and loving care the primary instincts of the child. If we observe nature, we shall find that early childhood is pre-eminently the time for imbibing knowledge. This knowledge, however, is entirely objective, being acquired from nature and life around it. This, then, is the period for perceptive teaching, for storing the mind with objective knowledge. But during this time the child is not content with being merely the recipient of knowledge: true to its instincts, it soon begins to reproduce what it has acquired—to imitate what it sees and hears, and to express what it feels. The power of seizing vivid ideas of things—of combining, associating, and connecting them with the appropriate words or signs, is now in the highest state of intensity. "Nature, therefore," says Mr. Morell, "shows that in education our principal aim at this time of life should be to furnish nutriment for the growth and expansion of the powers of inward representation; that is, for strengthening the memory, training and regulating the imagination, giving full play to the laws of association, and producing the capacity of expressing ideas in clear, lumi-

nous, correct, and copious language. All these habits of mind can generally be acquired with great facility at this time of life; but if neglected *now*, so difficult does the process of their education afterwards become, that it is a thousand chances to one whether they will ever be acquired to any degree of perfection at all." As the reasoning faculties become more advanced and mature, these powers gradually degenerate. It is, therefore, of the greatest importance, not only that they be improved to the utmost during this period of life, but that nothing should be done to abridge it, by prematurely developing the reasoning faculties. Direct teaching is the best, and rules, or the application of them, should be as little resorted to as possible. In questioning a boy, so as to bring out his knowledge, care ought to be taken to follow only the natural order. If questioned on the subject of his reading, the questions should follow the order in which it was read, and not taken at random throughout the lesson, or, as is sometimes done, by proceeding from the end to the beginning. This is of more importance than it may at first seem; for there are certain laws of the mind, commonly known as the laws of association, according to which things are stored up in the memory and reproduced. One of these is, that things are reproduced in the order and with the associations that they were received, and an habitual departure from this order is destructive of one of the finest and most important laws of mind. It is in this way that one comes to acquire the style and modes of thought of another, the thoughts flowing naturally in the same way, the ideas suggesting each other in the like order. In every process of thought or course of reasoning there is a certain natural order in which the ideas suggest and follow each other; and any interference with this order tends to introduce confusion—thoughts springing up that are not directly wanted, and the mind becoming crowded with irrelevant matters. As in any mechanical operation, the work goes on best when the materials are brought to hand as, and in the order that, they are required; so in mental operations, the mind acts best when the thoughts and words are brought before it exactly in the order that they are needed—when it is given them at the proper time what they shall say. The reasoning power requires cultivation. It deals with the general and the abstract; separates our knowledge into definite parts; arranges, classifies, and embodies it in accurate terms; expands it into formal propositions, and draws conclusions from one proposition to another. As the mental powers become somewhat mature, then the main portion of our intellectual education should be directed to the regulation and development of this faculty by means of the higher branches of study—logic, mathematics, science, and philosophy. Placed as we all are in the position of members of a social system, the work of education cannot be conducted on strictly abstract principles. In this, as in other matters, we must make compromises. Only a comparatively few persons can devote a lengthy period of their lives to systematic education of the faculties or to the acquisition of general knowledge. The special knowledge fitting each of us for the position in life we are likely to occupy, must be acquired; and necessarily the time for acquiring it is short. As far as possible, in such a case, general education of the faculties, with a view to ensure accurate perceptions, correct processes of reasoning,

and a healthy and well-balanced action of the mind, should be attended to; but the instruction—that is, the imparting of knowledge—must be adapted to the requirements of life, the choice of subjects being regulated by the demand for special knowledge likely to be made by the occupations of the future course of life. Philologists are needed in the world, so are carpenters; but the necessities of life keep the two classes separate, and each has to be prepared for his work by technical education of a different kind. In the following articles, education must be taken in the ordinary and popular sense, as signifying development of the powers by systematic training and the imparting of knowledge, or instruction. Education, so defined, may be classed into three great divisions—intellectual, moral, and technical. The education of the intellect only may make a strong man, but not a good one; for cultivated faculties may be powerful instruments of evil as of good. The education of the moral faculties deals with the perception of the difference between right and wrong, the strengthening of the will to choose, and the sense of duty to desire to choose correctly. Technical education stands apart from the other in its nature, being limited and special. The man of cultivated and trained intellectual power may design a complex machine, calculate the proportions of its parts, and, with mathematical accuracy, define its rate of work, but be unable to make it, a work devolving on another, who with narrow capacity and small acquirements, has technical knowledge, and is expert in the use of tools and the constructive arts. Either of the two may be of the lowest moral character, and yet their work be none the worse. To complete the man, moral education is requisite; and the union in one individual of mental capacity, practical skill, and high moral principle produces the nearest approach possible to a perfect man—absolute perfection being impossible to humanity.

Condition of Elementary Education throughout the World.—It is only in European countries and among populations deriving their origin from European stocks, that the number of educated persons—that is, of those who have been instructed in the arts of reading and writing, the elements of arithmetic, and the rudiments of general knowledge—is anything more than a very small minority. In most of the large states of Europe, the English colonies, and the United States, education is provided for either by the State or by private means, and schools and colleges afford means for obtaining instruction of varied kinds, varying from elementary knowledge to the highest scholarship. We are able to arrange some results, obtained from official sources, illustrative of the state of education in some of the chief countries of the world—exclusive of the United Kingdom, which is treated of under another heading. In *Austria*, until about twenty years ago, two-thirds of the population were almost entirely illiterate. Education is now compulsory in the German part of the empire of Austro-Hungary, all children between the ages of six and twelve being compelled to attend the national schools, and parents being made liable to punishment for neglect. In *Belgium*, there is no compulsory law of education, although schools are assisted by the State, and nearly one-fifth of the grown-up population are unable to read and write. In *Denmark*, instruction at the public expense is given in nearly 3,000 parochial schools spread all over the country; and all children from the ages of seven to fourteen are compelled to attend. In *France*, nearly one-third of the population are entirely devoid of elementary education, being unable to read or write. The department of the Doubs has the smallest number of entirely illiterate persons, only 7 in the 100; and the highest per centage of illiteracy is in Haute-Vienne, nearly 69 in the 100; Dordogne running it very close. Throughout

Germany, education is general and compulsory. There are elementary schools, supported from the local rates, in every town and village, and all parents are compelled to send their children to these or other schools. In *Greece*, communal schools were established in 1834, and the system of compulsory education adopted; but the system has been so imperfectly carried out that only about 33 per cent. of the grown-up men and 7 per cent. of the grown-up women can read and write. In many of the communes not one woman can either read or write, and about one-half of the soldiers and sailors are totally illiterate. In *Italy*, the great majority of the people are illiterate. Official statistics show that throughout the kingdom, about 7,889,000 men and 9,110,000 can neither read nor write. As the total population is about 28,000,000, more than four-sevenths of the people are completely illiterate. In some of the provinces, the ratio of the illiterate is as high as 80 and 82 per cent. In the 24 towns, capitals of provinces, the average is that a little more than 50 per cent. of the inhabitants know how to read and write. In the *Netherlands*, a primary instruction law was passed in 1857, and amendments were adopted in 1878, by which education is made practically compulsory. It is estimated that in the more rural parts of the kingdom one-fourth of the grown-up men and one-third of the women can neither read nor write. In *Portugal*, there is a law making it compulsory on parents to send their children to a place of public instruction; but this law is practically neglected, and only a small number of the children, except those of the higher and wealthier classes, really attend school. *Spain* is a little better off educationally, and the Government gives some assistance to schools which are increasing in respect of number and attendance. It is, however, safe to say that, out of a population of about 17,000,000, about 12,000,000 can neither read nor write. The mass of the population of *Russia* is uneducated, except in the province of Finland, which has a system of public instruction peculiar to itself, producing the almost unexampled result that probably every person beyond the age of infancy, can read, if not write. In the other provinces of the empire, not more than 12 per cent. of the young men enlisted for the army can read and write. In *Sweden and Norway*, education is gratuitous and compulsory, the teachers being paid by the State. The results are almost equal to those realised in Finland. In *Switzerland*, parents are required to send their children to school; and in the Protestant cantons the law is rigidly enforced, but is less carefully observed in the Roman Catholic cantons. The children of the poorer classes are educated gratuitously, in the same schools as those attended by the wealthier classes. Public schools have been long established in most of the larger towns of *Turkey*, but the instruction is of a limited character. In the country districts, the people are generally uneducated. In the *United States*, the native white population is generally fairly well educated; but there is a continued influx of numbers of uneducated immigrants. A committee of education and labour, appointed by Congress, has just (June, 1882) made a report, in which it is stated that "according to the returns of the last census there were 6,230,000 persons over ten years of age—or an eighth of the total population—who could neither read nor write, and three-fourths of this number are inhabitants of what were formerly the slave states." More than a fourth of the total population of these states are uneducated.

Education in India.—The Royal Commission on Education in India met for the first time in February, 1882, at Calcutta. The commission consists of 21 members, representing the various provinces of India, and classes of the community. The policy of the Government appears to be the development of primary and vernacular education, by diverting thereto some of the funds now applied to higher education, and the transfer of the control of government schools and colleges to municipalities or bodies of native gentlemen who will undertake to manage them as aided institutions. Amongst the subjects to which the attention of the commission has been specially directed are the development of female education, the preparation of a great series of school text-books and the training of teachers.

Elementary Education in the United Kingdom.—There was no systematic method, established by law, of affording elementary instruction to the children of the

poorer classes before the passing of the Elementary Education Act, in August, 1870, by which local school boards were established, and attendance at the board, or other certified schools, was made, with some exceptions, compulsory. There were endowed schools, and so-called public schools, but the richer classes derived the benefit; and there were parochial charity schools, nearly 2,000 having been established by the Society for the Promotion of Christian Knowledge between 1698 and 1741. The British and Foreign School Society, and the National Society for Educating the Poor, established many schools, but the children of the poorer classes generally were either left ignorant of the rudiments of learning, or compelled to be content with such scanty instruction as could be given by private teachers, many of whom were very incompetent. In 1834, the Government began to make annual grants for the promotion of public education; and, in 1859, a Committee of the Privy Council on Education was appointed by the Crown to superintend the application of the money. In consequence of the report of the Commissioners on Popular Education, published in 1861, the Committee of the Privy Council established a "revised code of regulations," which decreed regular examination of the pupils, payment by results, evening schools for adults, and other changes. The Elementary Education (England) Act of 1870 enacts that every district in which the existing schools are found deficient shall have a popularly-elected school board to manage its rate-supported schools, levy school-rates, appoint teachers, &c. A local rate forms the nucleus of each school fund; but, in addition, every school is entitled to an annual Parliamentary grant, varying in amount according to the number of pupils and their proficiency, as tested by different standards of examination. Schools are to be open at all times to Government inspection. Religious instruction is at the option of each board; but, if given, is to be at fixed times independent of the ordinary school hours, and no child is to be compelled to attend. The parents of children have to pay a small weekly fee; but, if unable to do so, the parochial guardians are called on to pay it. The Act for Scotland differs in some slight respects from the measure for England.

EDUCATION, TECHNICAL. (See TECHNICAL EDUCATION.)

EFFENDI, *ef-fen-de*, among the Turks, a title of honour given to civil dignitaries and others, in contradistinction to the title *aga*, which is only bestowed upon courtiers and military officials. The word is equivalent to the English Sir, or the French Monsieur. Thus the Minister of Foreign Affairs is called Reis-effendi; the first physician of the Sultan is termed Hakim-effendi; the priest of the seraglio, Imam-effendi, &c.

EFFIGY, *ef-fe-je* (Lat., *effigies*, a likeness), the resemblance or likeness of any person executed in metal, stone, wood, plaster, &c., or depicted in a drawing or painting. Although it is generally taken to mean a likeness in any form or material, it is a word but seldom, if ever, used in the fine arts; but is commonly employed in reference to the figures on monumental brasses. It also applies to the rude representation of any one. Burning in effigy—that is, burning a figure supposed to represent some unpopular person—is often resorted to by a mob.

EFFRAYÉ, or **EFFARÉ**, *ef-fra'-a*, in Heraldry, a term signifying that the animal depicted is rearing on its hind legs as if alarmed or amazed.

EGYPTIAN ARCHITECTURE, *e-jip'-shan*.—The architecture of Egypt is the oldest in the world, and is superior to that of any other country, Assyria alone excepted, in its colossal proportions, massive structure, general magnificence, and grandeur of conception. It has the merit of being entirely original, and possesses

peculiar characteristics that distinguish it in a striking manner from that of any other country. The earliest specimens of Egyptian architecture that yet remain to us, and which will probably endure as long as the world lasts, are the pyramids, and the monumental records known as obelisks. The pyramids are buildings of great solidity, but of simple form. They are built on a square base, with four triangular sides, that meet in a common apex. They are supposed to be royal mausoleums, and were built between 1500 and 1000 B.C. (See PYRAMIDS.) The obelisks are four-sided shafts of great size, terminating in a pyramidal top. They are hewn out of a solid block of stone; and are elaborately carved with hieroglyphics. The most magnificent specimens of Egyptian art are the temples, which Sir Gardner Wilkinson thus classifies—sanctuary temples, or those with only one chamber; peripteral temples, similar to the preceding, but surrounded with columns; temples with a portico of two or four columns in front; temples with porticos of many columns; temples with large cones, and with pyramidal towers, or propylons in front. Some of the last mentioned temples cover a great space of ground, and stand in a walled inclosure. Before the temple itself there is a large square court, surrounded on three sides by a colonnade. Access is obtained to this court through a doorway of great height, flanked on either side by quadrilateral towers, diminishing in size as they approach the top. The doorway and side towers are adorned with colossal sculptured figures, and in some cases an avenue of figures, generally sphinxes, was made, leading directly to the doorway we have mentioned. The temple itself was generally raised, the court between it and the grand entrance being composed of a series of broad steps rising in a gradual slope. These steps lead to a magnificent hall or portico, occupying nearly the entire width of the court, in which there are generally six rows of pillars which support the flat and massive roof. From the portico we enter a smaller hall, also divided into narrow spaces by pillars that support the roof, and after crossing two or more chambers, each narrower than the one before it, we gain the innermost chamber, or shrine, exactly fronting the entrance, in which the statue of the divinity was placed, to whose worship the temple was dedicated. The area occupied by the temple at Edfou is 414 feet long by 154 broad, the towers on either side of the gateway being 104 feet long by 47 broad at the base, and 84 feet in length by about 30 in width at the summit; but these proportions, large as they may appear, are eclipsed by those of the temple of Karnak, the great hall or portico of this magnificent building being 338 feet long by 170 broad, and covering an area nearly equal to that of the entire temple of Edfou. The entire length of the temple of Karnak is about 1,200 feet, and its breadth about 360. The columns, entablatures, and mouldings, are the great distinctive features of Egyptian architecture, in addition to the marked peculiarity that their doors and windows, and even the buildings themselves, present—namely, the convergence of the sides; so that the breadth at the base is greatly diminished in extent at the summit. The size of the columns is in proportion to the extent of the building in which they are placed. At Karnak they are 9 and 11 feet in diameter. First they were square in form, then polygonal, and at last circular shafts were made. All are elaborately sculptured. The shaft stands

generally on a circular base, and sometimes on a base that contracts in size as it approaches the floor of the building, instead of expanding from its junction with the shaft, as is usually the case. The capitals are sometimes bell-shaped and adorned with lotus leaves, while others are square in form, with a human face sculptured on each side. In some cases, as at Denderah, this capital is surmounted by another, also quadrilateral in shape and enriched with carving. The entablature was very massive and heavy, consisting of an architrave surmounted by a bold and deeply-moulded cornice, the upper part of which projected considerably beyond the face of the walls of the building. The roof was perfectly flat. The doorways are surrounded by a flat moulding, and surmounted by a cornice and lintel of great depth. Figures attached to the walls were generally executed in *alto-relievo*, like those that flank the doorways of the Assyrian palaces; but the hieroglyphics and representations of historical events were carved in low relief, in a style peculiar to Egyptian sculpture known as *cavo-relievo*. (See CARTOUCHE.) The walls were adorned in paintings in red, blue, green, black, and yellow, on a white ground: gilding was also introduced as an embellishment, and the sculptured columns and the ceilings were also painted. The domestic dwellings of the Egyptians seem to have been built of brick, consisting of rooms ranged round a central court planted with trees, and having a fountain in the centre. They were sometimes two and three stories high. The flat lintel is common to Egyptian, Grecian, and Assyrian architecture; the method of forming arched doorways and vaulted passages was known to the Egyptians, but it was seldom resorted to by them, and then principally in the construction of tombs.

EGYPTIAN ERA.—The year of the ancient Egyptians consisting of 365 days, brought back the commencement of the year to the same place in the seasons every 1461 years, which is termed the Gothic period. The first of these periods began 1321 B.C. To remedy the inconvenience of this calculation, the astronomers of Alexandria, 30 B.C., caused five days to be added every fourth year, and the reform commenced five years after that date.

EIDOGRAPH, *ἰδ-ο-γραφ* (Gr., *eidos*, form, and *graphein*, to write), a machine which answers the purpose of a pantograph, and is used for copying plans and drawings on the same scale, or for enlarging or reducing them in any proportion that may be desired.

EIGHT, PIECE OF, a name once given to the Spanish dollar, which is equal in value to eight reals.

EIGHT-FOIL.—In Heraldry, grass having eight leaves. It may be used as the difference of the ninth branch of a family.

"EIKON BASILIKE," *ἡ-κone βασιλ-ῖ-και*, or "the Portraiture of his sacred Majesty in his solitudes and sufferings," a book of devotion long supposed to have been written by Charles I. during his imprisonment in the Isle of Wight; but now generally acknowledged to have been the production of Dr. Graven, Bishop of Exeter, and afterwards of Worcester, but probably corrected by the king. It is written in a strain of elevated piety, but indicates a struggle between a strong sense of royal position and prerogative and a conviction of the duty of Christian humility. M.

Guisos says, "It is to the *Eikon Basilike* that Charles I. is principally indebted for the name of the Royal Martyr."

EISTEDDFOD, *i-steth'-vod* (Welsh, *eistedd*, to sit), a name applied generally in Welsh to any meeting or concourse of people, but more particularly to the assemblies of the Welsh bards and minstrels, who anciently formed an hereditary order. They have been revived during the present century, and eisteddfods are held periodically at various Welsh towns in succession, at which prizes are awarded for proficiency in the Welsh tongue, and for poems in that language, and playing on the harp.

ELBOW-PIECES, *el'-bo*, the plates of metal used to cover the elbow-joint at the junction of the brassart, or rere-brace, and the vout-brace, the former of which served as a protection to the arm between the shoulder and the elbow, and the latter to the lower part, between the shoulder and the wrist. They were sometimes called *coudières*.

EL DORADO, *el do-ra'-do* (Spanish, the golden region), the term applied by the Spaniards, in the 16th century, to an imaginary land abounding in gold and all kinds of precious stones, and supposed to be situate in the interior of South America, between the rivers Amazon and Orinoco. Many expeditions were fitted out for the purpose of discovering it, and, although each proved abortive, the belief in the existence of the "golden land" survived until the commencement of the 18th century. In England, even, the fable took root, and Sir Walter Raleigh twice visited Guiana in search of "El Dorado." The name is now formally given to a county of California, within the limits of which gold was first discovered.

ELEGY, *el'-e-je* (Gr., *elegos*, from *e*, and *legein*, to cry, alas!), a term applied, in modern English language, to a short poem composed on a mournful occasion, generally on some one's death. Amongst the ancient Greeks, the *elegos* was a strain of lament, and usually consisted of a poem made up of alternate hexameter and pentameter verses. The elegiac was also the favourite metre for epigrams. It was used, however, by different poets in different ways. The elegies of Callinus and Tyrtæus are political and warlike; those of Minnermus are contemplative and melancholy; those of Theognis and Solon are moral and political, &c. The first Latin elegiac writer of note was Catullus, and he was followed by Tibullus, Tibullius, and Ovid. The elegiac verses of Catullus are either mournful or satirical, while those of the other poets of the Augustan era are devoted to subjects connected with successful or unsuccessful love. In more modern times, the poets of nearly every nation have practised this species of composition. Amongst the most famous in the literature of this country may be mentioned the "Lycidas" of Milton, and Gray's "Elegy, written in a Country Churchyard."

In music, an elegy is a composition depicting feelings of mourning, sadness, or ardent love.

ELEMENTAL SPIRITS.—In the Middle Ages, and generally throughout Europe, it was popularly believed that the "four elements," earth, air, fire, and water, were each ruled over by certain spirits, known as gnomes, sylphs, salamanders, and undines. For illustrations of the belief in these spirits, refer to Pope's charming poetic burlesque, "The Rape of the Lock,"

and the exquisite German romance, "Undine," by La Motte Fouqué.

ELEVATION, *el'-e-va'-shun*.—In Architecture, the view or perspective of a building. The term is also applied in architectural drawing to the front of a building or object drawn to a scale without regard to perspective.

ELF. (See FAIRIES.)

ELF-ARROWS, *elf'-ar-roze*, a name popularly given to the flint arrow-heads that are occasionally found, and which were at one time used here as weapons of attack, as they still are among various savage tribes. The popular belief was that they were shot by elves or fairies; and, as they were most commonly met with after showers of rain, they received in Germany the name of thunderbolts. They were regarded as a preservative against witchcraft and poison, and were hence frequently worn about the person.

ELGIN MARBLES, *el'-jin*, a collection of pieces of sculpture, made by Thomas, earl of Elgin, between the years 1802 and 1812, when he filled the office of ambassador to the Ottoman Porte. The vessel which was conveying the marbles to this country was wrecked near Cerigo; they were, however, recovered from the sea, and purchased by the British Government for the sum of £35,000 in 1816. They are now to be seen in the British Museum, in what are termed the Elgin rooms. The collection consists chiefly of slabs and fragments from the ruins of the Parthenon, a temple sacred to Minerva, built on the Acropolis of Athens during the time of Pericles, in the 5th century before Christ, and adorned with magnificent friezes and groups of sculpture, executed under the direction of Phidias. The sculptures are of three different kinds: metopes, or rectangular slabs that covered the spaces between the triglyphs of the Doric frieze of the peristyle on the southern side of the building; parts of the frieze that surrounded the exterior of the entire temple, at the height of forty feet from the ground, forming a continuous series of sculpture about 520 feet in length and 40 inches in height; and portions of statues that adorned the pediment, which are unfortunately considerably mutilated, being for the most part without heads, arms, or feet. The metopes are executed in high relief, and represent the battles of the Centaurs and Lapithæ; the slabs are sixteen in number, one, however, being a cast in plaster from the original piece, which is now in the Louvre at Paris. The frieze is in low relief, and represents the procession that took place at Athens once in five years, called the Panathenæa. There are about 325 feet of this frieze at the British Museum, 250 feet being portions of the original marbles, and the remainder consisting of plaster casts. Of the statues, the best are the group known as the Fates, the statue of Theseus, the torso of Ilissus, and the spirited head of one of the horses of Night. There are other remains of great beauty in the collection; among which may be mentioned the statue from the monument of Thrasylus, the Caryatid from the Pandrosion, and the column from the Erechtheum, with some urns and sepulchral inscriptions.

ELIMINATION, *e-lim'-i-na-shun*, an important process in mathematical and other processes of reason, by which all extraneous considerations, not essential to the result, are eliminated, or set aside.

ELISION, *e-lizh'-un* (Lat., *elisiō*, from *elido*, I strike off), the cutting off or suppressing a vowel or syllable, particularly at the end of a word, for the sake of euphony, or in poetry to suit the verse. It is generally marked by the substitution of an apostrophe (') in place of a vowel.

ELIXIR, *e-likhs'-er*. In popular superstition and poetry, a love-potion or draught, supposed to inspire the feeling of love, was known as an elixir, and was sold by mountebanks. Donizetti's popular opera, *L'Elixir d'Amore* (elixir of love), is founded on this superstition. Some of the old alchemists professed to have discovered an elixir of life, by the use of which death would be avoided and youth retained.

ELIZABETHAN ARCHITECTURE, *e-liz-a-be'-than*, the style that prevailed in England during the latter part of the 16th century and the early part of the 17th, and so called because it is the characteristic style of buildings erected during the reign of Elizabeth. It was used only for palaces, mansions, and dwelling-houses, being unsuited for ecclesiastical architecture; but, for the purposes to which it was applied, it was stately and picturesque as far as the exterior is concerned, and afforded the means of obtaining a commodious and comfortable interior. It is somewhat similar to the Renaissance style of architecture in France, and is sometimes said to consist of a combination of this with the Tudor style that prevailed in the reigns of Henry VII. and Henry VIII. (See **TUDOR STYLE**.) The finest old country mansions and palatial residences in England are in this style, and among the best may be mentioned those of Longleat; Hatfield House, Charlton House, Knowle; Holland House, Kensington; Burleigh; Wollaton House, Notts; and Aston House, near Birmingham. The most common form of the ground-plan of houses in this style is that of the letter E, and it is supposed that it was adopted as a compliment to Queen Elizabeth, as it was the initial letter of her name; it is most probable, however, that the plan was chosen on account of the convenience it offers for the peculiar structure of the exterior and the interior arrangements, and that the compliment was an after-thought. The main part of the mansion is represented by the back of the letter, while the wings at the sides and the porch in the centre are denoted by the three parallel lines projecting from it at right angles. The material most commonly used was brick of a bright red colour; the quoins and dressings of the windows were occasionally of freestone; the face of the exterior was also frequently ornamented by dark bricks disposed so as to form a diamond pattern, in diagonal lines cutting each other at right angles. When stone was used, it was generally covered with stucco, and the exterior was painted. The larger buildings were reared on a solid basement, and the entrance was gained by flights of steps leading to a terrace with a balustrade in front. The windows were square-headed, generally broader than they are high, and divided into compartments by mullions and transoms. The spaces between the windows were adorned with pilasters on pedestals, which were panelled and ornamented with scroll-work. The pilasters were always surmounted by a continuous entablature. The gables were various in form, the ogee gable being the most common; the greater part of them are

adorned with arabesque scrolls and mouldings. The chimney-shafts were tall, and generally circular, octagonal, or twisted in shape; sometimes they were banded with interlaced fret-work. The broad and stately staircase of polished oak is one of the most striking features of the interior, the balustrades and massive uprights at the angles being richly carved. The ceilings were divided into compartments by rectangular and curved mouldings. The walls were panelled with wainscot, which had the effect of rendering the rooms dark, and to a certain extent gloomy. The chimney-pieces were elaborately adorned, and were lofty and massive.

ELLIPSIS, *el-lijp'-sis* (Gr., *elleipsis*, an omission), the omission of one or more words which may be easily supplied by the imagination. It is used either to express passion or for the sake of brevity and conciseness.

ELLIPTIC COMPASS, *el-lijp'-tik*, the name applied to any contrivance used for describing an ellipse. The most common and simple method is to take a string, equal in length to the major axis of the ellipse (see **ELLIPSE**), and attach the ends to two pins, which are stuck into the material on which the ellipse is to be described, at those points in the major axis which represent the foci of the ellipse. The string must be then extended on the point of a pencil, and the curve traced by the point, the string being kept at full stretch, will be an ellipse. Another plan is to take two pieces of wood or metal, which may be fixed at right angles to each other; a deep groove is cut in the upper surface of each, in which two pins travel, which are attached to a beam, with a hole or socket at one end of it for the reception of a pencil. The pins may be fixed at any distance from each other on the beam, by means of clamping screws, so that ellipses of various sizes may be described, as large as the length of the beam will allow. As the pencil traces out the curved line, the pins move along the grooves from either end to the centre, and from the centre to either end, until the entire curve has been traced out.

ELOCUTION, *el-o-ku'-shun* (Lat., *e*, and *loquor*, I speak), is delivery, or the art of effective speaking. (See **ORATORY**.)

ELOGE, *ai-lozhé'* (Fr.; Lat., *elogium*; Gr., *eulogia*), denotes, literally, praise, and is more particularly applied to orations delivered in honour of a deceased person. When a member of the French Academy dies, it is the custom for his successor to deliver a panegyric oration, setting forth his labours and merits.

ELOPEMENT, *e-lope'-ment* (Dutch, from *loopen*, to run), in legal language, is where a married woman of her own account leaves her husband and goes to live with an adulterer. In ordinary language, the word is applied to the clandestine going away of a girl with her lover. Novel-readers suppose that in such cases, the young lady always gets out of a window by the aid of a rope-ladder.

ELOQUENCE. (See **ORATORY**.)

ELVES. (See **FAIRIES**.)

ELYSIUM, or **ELYSIAN FIELDS**, *e-lizh'-e-um* (Gr., *elusion*), in Classical Mythology, a place or island in the infernal regions where the souls of the virtuous were supposed to dwell after death. Elysium is conspicuous in the

"Iliad" and the "Odyssey" of Homer. Nearly all the later classical poets describe Elysium as a place of light and happiness, some adding continual feasting and revelry, others in warlike sports, and others in taming horses and hunting. The position of the Elysian fields differs also according to various poets. By some it is said to be in mid-air, others in the sun, others in the moon, and others in the centre of the earth, near Tartarus: the general belief was that they lay in one of the isles of the ocean, called the Fortunate Islands, now called the Canary Islands.

ELZEVIR EDITIONS, *el'-ze-ver*.—The Elzevirs were a family of celebrated printers and publishers at Amsterdam, Leyden, the Hague, and Utrecht, who flourished mostly in the early half of the 17th century, and who gave to the world many beautiful editions of the best authors of antiquity. The original name of the family was Elsevier, and the French editions mostly retain that name; but in the Latin editions, which are the more numerous, the name appears as Elzevirius, which became gradually corrupted into Elzevir. The Elzevir editions have been long and deservedly esteemed for the clearness, delicacy, and perfect equality of the characters, for their close position together on a solid and very white paper, and the excellence of the press-work. Many of the Elzevir editions bear, as a typographical mark the words *Apud Elzevirios*, or *E. Officina Elsevieriana*. Isaac Elzevir adopted as a mark the branch of a tree surrounded by a vine branch bearing clusters of fruit, and below it a man standing, with the motto *Non solus*. Louis Elzevir adopted Minerva with an olive branch, and the motto *Ne extra oleas*. No fewer than 1,213 works of all kinds bear the name of the Elzevirs, of which 968 are in Latin, 44 in Greek, 126 in French, 32 in Flemish, 22 in the Eastern languages, 11 in German, and 10 in Italian.

EMBATERION, *em-ba-te'-re-on*, a war song, accompanied by flutes, sung by the ancient Spartans when marching against an enemy.

EMBATTLED, *em-bat'-tled*, in Heraldry, one of the eight crooked or curved lines used, in addition to the straight line, in dividing one part of the field from another, or for the outline of any principal ordinary. When this outline, or line of division, is in the form of the battlements of a tower, it is said to be embattled. French heralds use the term *crenelle*. (See CRENEL.)

EMBLEM, *em'-blem* (Gr., *emblema*, from *en*, into, and *ballein*, to cast), in the primary sense of the word, it means a piece of mosaic, or any work in which bits of one kind of material are inserted or let into another; but, in our acceptation of the term, it is applied to anything which, by association of ideas, appears to be a visible and suitable representation of some abstract quality, or it has a similar meaning to that of the word device. (See DEVICE and SYMBOL.)

EMBOUCHURE, *em-bo'-shure*, a geographical term applied to the mouth of a river.

EMBOWED, *em-boed'*, in Heraldry, anything bent like a bow.

EMBRASURE, *em-brai'-zhur* (Fr.), an architectural term applied to the rectangular indentations of a battlement, or the splayed opening for a door or window.

EMBRASURE, in Fortification, the opening

made in the parapet of a rampart to allow a cannon to be fired through it. In field-works, embrasures are revetted with timber and fascines or gabions, and are protected from the flame from the muzzle of the gun by a covering of raw hides. Mantlets or shutters are often used to mask embrasures, and protect the men at the guns from riflemen. They are withdrawn suddenly when the gun is to be discharged, and closed after the fire is given.

EMBROIDERY, *em-broid'-er-e* (Fr., *broderie*), a term applied to the art of working ornamental figures upon fabrics of any kind with a needle and thread. The art of embroidery is one of the oldest, and has always been one of the most important domestic occupations among Oriental nations. It was practised among the Hebrews during the time of Moses; and the women of Sidon were famous for their embroidery before the siege of Troy. In after-years, the women of Greece were celebrated for their proficiency in the same art; and some of their productions are said to have equalled, if not surpassed, many of the finest paintings then existing. The inhabitants of Peru, when discovered by the Spaniards, were found to have in their possession elaborate embroideries of gold and silver on feathers, which they manufactured with great skill. The ecclesiastical tapestry, curtains, priests' vestments, &c., in the middle ages, were all embroidered with the needle; and screens, corridor linings, &c., were the daily handiwork of some of the noblest ladies, assisted by their hand-maids. Embroidery is still a fashionable style of needlework, and many elegant works have been produced. Embroidery machines are much used for the production of ornamental muslins and other low-priced articles.

EMMANUEL COLLEGE, CAMBRIDGE, was founded in 1584 by Sir Walter Mildmay, Chancellor of the Exchequer and Privy Councillor in the reign of Queen Elizabeth. There are thirteen foundation fellowships; and there must always be four fellows in priests' orders, and the others, not being assistant tutors or bursars, are required to take priest's orders within seven years after election, or to vacate the fellowship three years afterwards. A fellowship is vacated by marriage unless the fellow hold a professorship of less value than £500 a year, also if he comes into possession of an income exceeding £300 a year; but the master and fellows can, by the consent of two-thirds of their number, allow a fellow to retain his fellowship permanently, although married, who shall have been for fifteen years a professor in the University, an assistant tutor, or bursar of his college. There are 12 open scholarships of £70 a year; 10 of £30 a year; 9 scholarships for which candidates from certain schools have a preference, and four other small scholarships.

EMOTION, *e-mo'-shun* (Lat., *e*, and *moveo*, I move), in Mental Philosophy, is a term frequently used as synonymous with feeling, but which is strictly a state of feeling awakened through the medium of the intellect, and manifesting its existence and character by some sensible effect upon the body. An emotion differs from a sensation in not springing directly from an affection of the body, and from a cognition, by its being pleasurable or painful.

EMPHASIS, *em'-fas-is* (Gr., *en*, and *phemi*, I speak), in pronunciation, is a mode of denoting

one or more words in a sentence by a stronger and fuller sound of voice, in order to draw attention to them, or to show how they affect the rest of the sentence. Sometimes the emphatic words must be distinguished by a particular tone of voice, as well as by a stronger accent, or a resting on the particular word.

EMPIRIC, *em-pi'-ik* (Gr., *empeirikos*, from *empeiria*, experience), is properly one whose knowledge is founded on experience or observation. A certain sect of Greek physicians took this name to denote their mode of treatment, as distinguished from that of the Methodists and Dogmatists. The term is commonly used as synonymous with a charlatan or quack doctor, or more generally an ignorant pretender in science. In philosophical language, the term empirical means simply that which belongs to, or is the product of, experience or observation, as distinguished from what is the result of reasoning or inference.

EMPYREAN, *em-pi-ré-an* (Gr., *empyros*, from *en*, and *pur*, fire), a term applied by poets and rhetoricians to the highest heaven, where the pure element of fire is supposed to exist.

ENAMELLING, ARTISTIC, *en-am'-el-ling*. An art of great antiquity. The ancient Persians and Arabians appear to have practised it upon earthenware and porcelain. The Egyptians also practised the art, and from them it is supposed to have passed to the Greeks, and thence to the Romans. That the Saxons were adepts in the art is proved by an enamelled jewel preserved at Oxford, bearing an inscription stating that it was made by order of the great Alfred. The *Byzantine Style* (*cloisonée*, enclosed) was the earliest, and was in use in the Byzantine empire from the reign of Justinian down to the year 1300. Its most celebrated exponent was the artist-monk Theophilus. The process was chiefly characterized by the formation of cells, or compartments of gold filigree, in which the enamel was lodged. The *Early Limoges Style* (*chaup leve*) came next, taking its title from the city in which it was much practised between the eleventh and fourteenth centuries. In this method the cavities for the reception of the enamel were incised by a graver in a thick plate of copper. The third, or *Early Italian Style*, was practised between the thirteenth and sixteenth centuries. This style seems to have taken a position midway between the old incised enamel and the painted enamels which, at a subsequent period, came in vogue. The first to describe the process which has obtained the name of the *Jewellers' Style* was the celebrated Italian artist Benvenuto Cellini. The *Late Limoges* was the fifth style, and in this process the paintings were laid on in transparent colours upon an opaque paste. The chief characteristics of the sixth, or *Miniature Style*, were the introduction of a number of new colours, a greater number of firings, and a greater graduation of tints. This process, which is almost identical with that practised at the present day, may be regarded as that description of enamelling which most fully comes within the definition of fine-art work. *Enamelled Manufactures*.—Iron utensils are enamelled by a mixture of powdered flint glass, carbonate of soda, and boracic acid fixed together, and then broken up into a fine powder, which is applied to the surface of the article, and submitted to a heat sufficient to fuse it to-

gether. Slate can be enamelled so as to resemble marble.

ENCAMPMENT. (See *CAMP*.)

ENCAUSTIC PAINTING, *en-kaws'-tik* (Gr., *egkaustike*, from *en*, in or into, and *kaio*, I burn), a method of painting that was practised to a great extent among the ancients, from the time of Alexander the Great until the 7th or 8th century, from which time the art gradually declined until the 14th century, when it seems to have been abandoned, and a practical knowledge of effecting it entirely lost. About 1750, the lost art was recovered, and the practice of it revived, by M. Bachelier and Count Caylus in France. Both produced pictures in this style, and an account of the method used was published. It was warmly taken up throughout the south of Europe for some years, when it again fell into disuse. It was revived again at Munich in the reign of King Louis of Bavaria, and the interiors of many apartments in his palace, and various public buildings erected under his auspices, were executed in it. Since this time, many fine works in this brilliant style of painting have been produced; but it is far better suited for decorative work than for portraits, figures, or landscapes. The colours are ground and laid on with a vehicle composed principally of wax. The wax is brought to the surface either by the application of a warm iron, such as that used for smoothing linen, or by a vessel containing fire being held at a little distance from the picture.

ENCAUSTIC TILES, small earthenware tiles used for paving the passages in the nave and aisles of churches, and also the chancel. They are also used for paving entrance-halls and the vestibules of houses. They are so called because they have a light arabesque pattern figured on them on a dark ground, or *vice versa*, in imitation of the early encaustic painting of the ancients. The clay of which the tiles are made is subjected to a pressure of several hundred tons. The pattern is produced by means of moulds or brass plates, and the hollows so formed are filled up with clay of the required colours. The tile is then pressed and fired.

ENCEINTE, *on(g)-sain(g)t'* (Fr.) (See *FORTIFICATION*.)

ENCHANTMENT. (See *MAGIC*.)

ENCHORIAL OR ENCHORIC CHARACTERS, *en-kore'-i-al*. (See *HIEROGLYPHICS*.)

ENCORE, *on(g)-kore'* (French), literally, "again," "once more," an expression commonly used in places of public amusement by the audiences to express their wish for a repetition of a particular part of the performance.

ENCYCLOPÆDIA, OR CYCLOPÆDIA, *en-si-klo-pé-de-a* (Gr., *paidia enukto*, instruction in a circle), is properly a work professing to give instruction in the whole circle of human knowledge. The two terms are used synonymously; but the former is regarded as the more correct, as denoting "in a circle;" whereas the latter may mean, "of a circle." The use of the word, however, in its present signification, is entirely modern. It does not appear that the ancients ever so applied the term encyclopædia. So far as is known, the name appears to have been first used in this sense by Alforabius, a learned Arab who flourished in the 10th century, and whose work, remarkable for its learn-

ing and completeness, is preserved in MS. in the Library of the Escorial at Madrid. The indefatigable Dominican Vincent of Beauvais, who flourished about the middle of the 13th century, gathered together with wonderful diligence the whole knowledge of his time in three works: "Speculum Historiale," "Speculum Naturale," and "Speculum Doctrinale," to which was soon afterwards added, by an unknown hand, "Speculum Morale." Several works bearing the name of Cyclopædia, or Encyclopædia, appeared in the 16th century; as Ringelberg's "Cyclopædia" (Basel, 1541), and Paul Scalich's "Encyclopædia seu Orbis Disciplinarum tum Sacrarum tum Profanarum" (Basel, 1559). In the beginning of the 17th century, appeared a work of no small merit—Matthew Martini's "Idea methodicæ et brevis Encyclopædia, sive Adumbratio Universitatis" (Herborn, 1606); but the most noted and valuable of the early encyclopædias was that of John Henry Alstedius, a professor at Weissembourg, in Transylvania, which appeared in 2 vols. folio, 1630, a smaller work having appeared ten years before. It consists of thirty-five books, the first four being an explanation of the others. At Basel, in 1677, in 2 vols. folio, appeared the "Lexicon Universale" of Hoffmann, followed by a supplement of the same extent in 1683, the two being incorporated in four vols. folio, 1698. The dictionary form which was introduced by Hoffmann's work is that which has since been generally adopted in encyclopædias. It doubtless suggested the first English work of this kind—the "Lexicon Technicum, or Universal Dictionary of the Arts and Sciences," by Dr. J. Harris, 2 vols. folio (London, 1706-10). A supplementary volume was afterwards added. It enjoyed great popularity till the appearance of Ephraim Chambers's Cyclopædia, in 2 vols. folio, in 1728. This presented a marked improvement upon its predecessors. It was long popular, and a seventh edition, in 4 vols. folio, appeared in 1778-85. Various other works of this kind were published before the end of this century, but the only one demanding particular notice is the "Encyclopædia Britannica," the first edition of which was published in 3 vols. 4to, Edinburgh, 1771. There have been subsequent editions, and the ninth is now in progress under the editorship of Mr. T. S. Baynes. Dr. Abraham Rees, who edited the last edition of Chambers's Cyclopædia produced, on the basis of that work, his admirable "Cyclopædia, or New Universal Dictionary of Arts and Sciences," extending to 45 vols. 4to (1802-19). Of the other encyclopædias, may be mentioned the "British Encyclopædia," 6 vols. 8vo, 1807-9; the "Encyclopædia Londinensis," 24 vols. 4to, 1810-29, by John Wilkes; "Pantologia, or New Dictionary of Arts and Sciences," 12 vols. 8vo, 1813-16; Burrowes' "Modern Encyclopædia," 10 vols. 4to, 1816; Miller's "Encyclopædia Edinensis," 6 vols. 4to, 1816; "Encyclopædia Perthensis," 2nd edition, 23 vols. 8vo, Edinburgh, 1816; "Oxford Encyclopædia," in 6 vols. 4to, 1828; "London Encyclopædia," 24 vols. 8vo, 1826-29; "Pantington's British Cyclopædia," 10 vols. 8vo, 1833-36, in four divisions, of Arts and Sciences; Biography; Literature, History, Geography, Law, and Politics; and Natural History. In 1818 was begun the "Encyclopædia Metropolitana, or Universal Dictionary of Knowledge," on an original plan, comprising the twofold advantages of a philosophical and an alphabetical arrangement. The plan is by Samuel Taylor Coleridge, and is explained in his article

"Method" prefixed to the work. The matter is arranged in four divisions:—1, the Pure Sciences; 2, the Mixed and Applied Sciences; 3, the Biographical and Historical articles; and 4, the Miscellaneous and Lexicographical articles. The work was completed in 1846, and extended to 25 vols. 4to; and since that time most of the larger articles have been reprinted in a small cabinet form. The "Edinburgh Encyclopædia," edited by Dr. (afterwards Sir David) Brewster, was commenced in 1810 and finished in 1830, in 18 vols. The "Penny Cyclopædia" of the Society for the Diffusion of Useful Knowledge was begun in 1833 and completed in 1843, in 28 vols. Three volumes of supplements were subsequently added. The "National Cyclopædia," in 12 vols. 8vo, 1847-51, was an abridgement of the "Penny Cyclopædia." The "English Cyclopædia" of Mr. Charles Knight was based upon the "Penny Cyclopædia," but divided into four distinct parts, any one of which may be purchased separately. The Messrs. Chambers, of Edinburgh, have very recently brought out an encyclopædia based upon the last edition of the German "Conversations-Lexikon." It extends to nine volumes. Based upon an earlier edition of the same work is the "Encyclopædia Americana," a popular dictionary of the arts, sciences, literature, history, politics, and biography, &c., edited by F. Lieber, in 13 vols. 8vo, Philadelphia, 1829-33, with a supplementary volume in 1848. The "New American Cyclopædia," edited by George Ripley and Charles A. Dana, in 8vo, and "Johnson's Encyclopædia," are valuable works of the same class issued in America. The volume now in the hands of the reader is a portion of a four-volume encyclopædia carefully adopted to popular requirements. In Germany the largest and most comprehensive of the immediate successors of Hoffmann's work was Zedler's "Universal Lexicon," published at Halle and Leipsic in 64 large folio volumes, 1732-50. The largest work of this class, however, is the "Allgemeine Encyclopædie der Wissenschaften und Künste," by Ersch and Gruber, commenced at Leipsic in 1818, and making in all 122 4to vols. The "Conversations-Lexikon," projected by Mr. Brockhaus, the publisher, in Leipsic, and first published there in 1812, has since gone through a number of editions. There are several other German encyclopædias on a somewhat smaller scale. In France, the first volume of the celebrated "Encyclopédie, ou Dictionnaire Raisonné des Sciences, des Arts, et des Métiers," of Diderot and D'Alembert, appeared in 1751, and the seventeenth and last of the original series was published in 1765. It is said to have been founded upon an unpublished French translation of Chambers's Encyclopædia, undertaken by an Englishman of the name of Mills. It numbered among its contributors writers of high name, as Voltaire, Rousseau, and others; and soon became very popular, and various editions of it were afterwards published in France and other parts of the Continent, and its principal writers came generally to be known as the Encyclopédistes. It was followed by another work of still greater extent, the "Encyclopédie Méthodique," begun in 1781 and not finished till 1832, comprising 201 vols. 4to. The first edition of the "Encyclopédie Moderne, ou Dictionnaire abrégé, des Sciences, des Lettres, et des Arts, &c., par une Société de Gens de Lettres," was published in 26 vols. 8vo, Paris, 1823-32. A third edition of this work was published in 27 vols., in 1852-57. The French have

also a "Dictionnaire de la Conversation et de la Lecture," in 68 vols. (Paris, 1839-51), of which a new edition begun in 1851 is still in progress, and a "Conversations-Lexicon," founded upon the last edition of the German work of that name. Based upon the German "Conversations-Lexikon" are the "Enciclopedia Española," begun at Madrid in 1842; the "Biblioteca universal de Instrucción," Barcelona, 1842; the "Almenytigt Dansk Konversations-Lexikon," by P. Larsen, Copenhagen, 1849; the "Svenskt Konversations-Lexikon," Stockholm, 1845; besides others in Holland, Russia, Hungary, &c. At Turin, a "Nuova Enciclopedia popolare Italiana," in 4to, was begun in 1856.

ENCYCLOPEDISTS. (See **ENCYCLOPEDIA**.)

ENFILADE, *en-fe-laid'* (Fr.).—When the line of fire from artillery or musketry is directed along the front of a body of troops drawn up on line, instead of against it, or so as to sweep the interior of any part of the defensive works about a place, or a trench in siege-works, from one end to the other in the direction of its length, it is called an enfilading fire, and is very destructive.

"ENGLAND'S PARNASSUS," *par-nas'-sus*, a volume published in London, 1600, supposed to have been compiled by Robert Allot, of whose personal history, scarcely anything is known. The full title is "England's Parnassus; or the choycest Flowers of our Modern Poets, with their Poetical comparisons. Descriptions of Bewties, Personages, Castles, Palaces, Mountaines, Groues, Seas, Springs, Rewens, &c. Whereunto are annexed other various discoveries, both pleasant and profitable." The book contained passages from forty-three English poets, many of the very highest rank.

ENGLISH LANGUAGE, *ing'-lish*, is the vehicle of spoken and written communication between upwards of 80 millions of people, and is as heterogeneous in its elements as it is widely extended in its sphere. "Latin, Greek, Hebrew, Celtic, Saxon, Danish, French, Spanish, Italian, German," says M. Müller, in his "Lectures on the Science of Language"—"nay, even Hindustani, Malay, and Chinese words, lie mixed together in the English dictionary." It was long a popular, and probably somewhat partial, axiom in this country, that Anglo-Saxon formed at least two-thirds of the spoken and written speech of it. But M. Thommerel has established the fact that Anglo-Saxon stands in no greater a proportion to the words of immediate or remote Latin origin than the relation of about 13 to 30. Yet the English language is essentially and truly a Teutonic or Saxon tongue; for it is not the extent of the vocabulary of a language that gives colour to the title of that language—it is to the grammar to which the tongue conforms that we must trace its scientific relationship. Now, whatever there remains of grammar in English—and, indeed, it is very little—obviously bears marks of being forged in a Teutonic workshop; and hence the necessity that there is for classifying it as such in the general philology of the world. In tracing the growth of the English language, it is usual to divide its history into the four periods of *Anglo-Saxon* (449 A.D.—1066 A.D.), *Semi-Saxon* (1066 A.D.—1250 A.D.), *Early English* (1250 A.D.—1550 A.D.), and *Modern English* (1550 A.D. to the present day). These in their order:—The *Anglo-Saxon* period of the language dates from

the 5th century. Anglo-Saxon was a Low-German dialect, bearing a close similarity to the old Frisic, which is usually recognised as the parent of the modern Dutch. After long years of social feuds and of national warfare, the absorption by Wessex, or West Saxons, of the various portions of the Heptarchy, in the 9th century, went far to make the ruling speech of the land the tongue of Berks and of Hants, the recognised centre of this clan. Two dialectal peculiarities at least seem at that early period to have prevailed in the island. There was the Northern or Anglian, which prevailed from the Humber to the Firth of Forth, and the Southern or Saxon one, which was spoken from the Humber to the English Channel. The *Semi-Saxon* period was a transition era, and, like every era of the kind, one of confusion and one of promise. The monks were, of course, the learned class of the time; and what with their ancient formularies and the mediæval Latin in which they performed their Ave-Marias and their Paternosters, when they attempted to write their mother-tongue they fell into the grossest mistakes. The "Saxon Chronicle," 1173, and Layamon's "Brut" (about 1200), afford abundant specimens of this slipshod style of Anglo-Saxon, and it is abundantly evident, from an examination of the inflections and genders of the language, that it was undergoing at this time a thorough breaking up. There is a curious feature observable in the Anglo-Saxon of this time—that, although its date makes it reach a century or two beyond the Conquest of 1066, it nevertheless exhibits but few traces of Norman French, which might be the language of the court; it certainly was not the language of the people. The *Early English* period of the language exhibits important features of consolidation and of final hardening. The English tongue now asserts itself throughout; yet it is still struggling to become national. In the first place, it contrived gradually to get rid of all Anglo-Saxon inflections, particularly in the substantives and adjectives; the vowels *a*, *e*, *u*, in final syllables are all represented by *e*, and the final *n* of the infinitive has already begun to disappear. It constantly prefers to express the relations of an idea by some new word attached to the original one, whereas the old Saxon tongue, like a genuine element of the Teutonic, always expressed such ideas by a modification of this word. By the time we reach Chaucer, Gower, and Lydgate, the French language has become a component part of English speech. And it is obvious that this modification was effected much more through the literary regard which was engendered in the breasts of those old poets for the French "Fabliaux," and such-like writings, than from any superior respect which they reluctantly paid to the speech of their Norman masters. Yet certain poets still clung affectionately to the old tongue, and in "Piers Plowman," and in a few others, we see examples of writers who still found the Anglo-Saxon sufficient for all their wants. In the southern part of Scotland, and particularly the Anglian counties lying south of the Forth, the language of the people was to all intents and purposes identical with the language of the extreme south. Barbour, a Scottish contemporary of Chaucer, wrote purer English than Chaucer did; that is to say, his poems were much freer from the foreign element of Norman-French. The close likeness of the two tongues to the north and south of the island did not last long after the war of independence.

In the *Modern English* period of the language, it was to a great extent perfected as to its grammar, if still deficient as to its vocabulary. Of course the rules and forms of the grammar had still to be rendered workable and delicate by the use which great practice can alone communicate. It is to be observed, however, that it was much more in the ease and dexterity which the old forms of speech received that this modern period is distinguished, rather than in any new modifications effected upon the grammar itself. Of course the additions which have been made to the English dictionary since the beginning of the 16th century have been immense—a process which still goes on: but the effects of change on the glossary of a tongue are merely secondary. The changes, accordingly, which it has since undergone, are merely changes in style, or in the variety of modes in which different individuals express themselves. The English language is worthy, by its remarkable combination of force, precision, and fulness, of being, as it is already, the speech of nearly all the free nations of the world.

ENGLISH DRAMA.—The earliest attempts at dramatic performances in England were the "Moralities," or "Miracle Plays." Though, as generally used, the terms are synonymous, the *Miracles*, properly so called, were the earliest form, and represented either subjects of Scripture, or legends of the lives of saints. The *Moralities* appeared later, and were allegorical representations of virtues or vices, so contrived as to make virtue always desirable and vice ridiculous and deformed. The *Mysteries* were usually more elaborate and lengthened performances, representing some of the sacred mysteries of Christianity, particularly in the life of Christ. The earliest of these mysteries belong to the 12th century: Chester and Coventry in England were particularly celebrated for the performance of them. The *Whitsun* plays were acted at Chester, seven or eight on each day, during the Monday, Tuesday, and Wednesday of the *Whitsuntide* week, by the various crafts in the city, to each of whom a separate mystery was allotted. The drapers, for instance, exhibited the Fall of Lucifer; the water-carriers of the Dee reproduced the Deluge; the cooks had the Harrowing of Hell. The performers were carried from one station to another by means of a movable scaffold, a huge and ponderous machine mounted on wheels, gaily decorated with flags, and divided into two compartments, the upper of which formed the stage, and the lower defended from vulgar curiosity by coarse canvas draperies, answered the purposes of the green-room. The performers began at the abbey gates, where they were witnessed by the dignitaries of the church; they then proceeded to the High Cross, where the mayor and civil magnates were assembled; and so on throughout the city, until this motley history of God and his dealings with man had been played out. The Chester *Mysteries* have been published by Wright, and the Coventry *Mysteries* by Halliwell. The *Townley Mysteries*, so named from the family having possession of the MSS., and supposed to have been written and performed by the Augustinian friars of Woodkirk, have been published by the Surtees Society (London, 1836). In these mysteries they represented not only men, angels, and devils, but even the persons of the Trinity. Heaven, hell, the creation and consummation of all things, were vividly pre-

sented to the eyes of the spectators. According to Malone, the last mystery performed in England was that of Christ's Passion, in the reign of James I. The first English comedy, "Ralph Roister Doister" was written by Nicholas Udall, about 1552. "Ferrex and Porrex," the first regular English tragedy, was acted before Queen Elizabeth upon the 18th of January, 1501, by the gentlemen of the Inner Temple. "Gammer Gurton's Needle," which was said to be the work of John Still, master of arts, and afterwards bishop of Bath and Wells, was first performed in Christ's College, Cambridge, in 1575. At the very commencement, English comedy was founded on characters of middle and humble life, and, unlike the French, was not dependent upon the frivolities and fashions of lords, ladies, and courtiers. It is to be remarked, that as our first tragedy had no intermixture of comedy, so our first comedy had no intermixture of tragedy. The vigorous Elizabethan drama sprang into existence with amazing rapidity. Between 1560 and 1580, 46 regular tragedies and comedies are known to have been enacted, some of which are now extant, besides those which have been preserved. In some instances, the open yards of large inns, such as the Belle Savage, at Ludgate, were converted into temporary theatres; but generally the plays were performed in the halls of the Inns of Court, the Sovereign's palace, and the residences of the nobility. The Blackfriars Theatre was roofed in, and so were the Whitefriars and the Curtain, at Shoreditch, opened a few years afterwards; but the Bankside theatres, the Rose, Hope, Swan, Paris Garden (originally a place for baiting bears), and the large Globe, built in 1593, were open to the sky. Altogether there were about a dozen theatres open at one time or other in the eighteen years of Shakespeare's London life. About the time that Shakespeare joined the Blackfriars company, or within two or three years afterwards, several dramatic authors attained considerable reputation. Among them was George Peele, a Devonshire man of good family and Master of Arts of Oxford. When twenty years old he came to London, and led a sadly wild life. He died miserably from the effects of drunkenness and dissipation. Another writer, Robert Greene, contributed to the stage. He was born at Norwich, and was Shakespeare's senior by three or four years. According to his own account, he had taken the M.A. degrees at both the great universities, and was certainly possessed of learning and superior abilities. He took orders, and was for a short time a vicar in Essex, but soon came to London, and "after leading one of the maddest lives on record, died a miserable death in September, 1592." John Ford was also a dramatist of considerable power. Far greater than either of these was Christopher Marlowe, of "the mighty line," who came to London, and, it is thought, appeared as an actor shortly after Shakespeare had established himself at Blackfriars. As a dramatic poet, he unquestionably holds the second place in the Elizabethan annals; and in "Faustus" there are passages of power and beauty which Shakespeare himself could scarcely have surpassed. His "Troublesome Reign and Lamentable Death of King Edward the Second of England," may almost take rank with the historical plays of his great contemporary, and perhaps suggested them. His "Jew of Malta" was the origin of Shakespeare's "Merchant of Venice," but is savage and sombre, unrelieved

with the delightful gaiety and tenderness and the human sympathy infused by the master mind. A tavern brawl ended the life of this great but misguided genius. The influence of the plays of Shakespeare upon poetry, the drama, and the world at large, is universally recognised. It is enough to say that his transcendent genius and matchless power created a model, which never has, and perhaps never will be equalled. A special article is devoted to his productions. (See SHAKESPEARE'S DRAMAS AND POEMS.) The tragedies of Jonson are distinguished for a sublime expression of moral sentiment. In comedy he occasionally followed the older Grecian school, as in the "Tale of a Tub," where, in order to ridicule his enemy, Inigo Jones, he trod in the path of Aristophanes. In the "Staple of News" and "Cynthia's Revels," he introduced allegorical characters, and personified abstract passions. (See JONSON'S DRAMAS.) In tracing the history of the English drama, we perceive the immense influence over his successors, of the plays of Shakespeare. Massinger, a man of considerable genius, endeavoured to unite the romance of Shakespeare to the realistic humour of Jonson; and to a certain extent he succeeded. His "New Way to Pay Old Debts," has been a popular piece of later times, the representation of *Sir Giles Overreach* by Edmund Kean, being one of that great actor's most powerful performances. "The Virgin Martyr," is an exquisitely beautiful play, but Dekker and others were permitted to interpolate comic scenes of a very gross character. Beaumont and Fletcher, both men of remarkable talents, grafted upon Shakespeare's method of composition the boundless license of the Spanish school. (See BEAUMONT and FLETCHER'S PLAYS.) The plays of Shirley, Ford, and of Dekker, although now little known, abound with admirable passages and detached scenes of singular merit; Webster was a dramatist of singular power, especially in the treatment of terrible subjects. His "Duchess of Malfi" has been frequently performed in our own times. The great and original school founded by Shakespeare and Jonson, and followed by Massinger, Beaumont and Fletcher, and others clesed with the outbreak of the civil war in 1642. A proclamation shut up the theatres and dispersed the players, almost all of whom took up arms for King Charles, in whose service many of them perished. One Robinson, an actor at the Blackfriars theatre, was killed by Harrison, the regicide, in cold blood, Harrison declaiming the text from Scripture, "Cursed be he who doeth the Lord's work negligently." The winter of 1648, the players at the Cockpit, while acting the "Bloody Brothers," were surprised by a party of soldiers in the middle of the play, and carried to prison in their playhouse dresses. On February 11, 1647, an Act of Parliament was passed that all stage-galleries, seats, and boxes should be pulled down, by warrant of two justices of the peace; that all actors of plays for the time to come, being convicted, should be publicly whipped; and all spectators of plays should, for each offence, pay five shillings. The Restoration may be said to have inducted the second period of the English drama. Charles II., who in his exile imbibed French tastes, brought with him to England a relish for the beauties of the French stage. Dryden, Howard, and the authors of the day, fostered this taste, and heroic plays were applauded by both the court and city. The heroic play was a forced and unnatural mixture of French senti-

ment, English noise and bustle, stilted dialogues, drums, and processions. The heroes and heroines were all of one exactly virtuous pattern; valour was entirely refined, and love of the most impossible purity. At the same time, comedy deserted delineation of character and construction of plot, and endeavoured to shine only in dialogue. The atmosphere of a licentious court infected the stage; and the authors strove by a succession of smart jests and loose epigrams to amuse the wits of the town rather than to point a moral or wing a satirical truth. The Duke of Buckingham's famous satirical burlesque of "The Rehearsal" exhibited the absurdities of the two French schools of art, and tragedy and comedy retraced their steps. About this time actresses first appeared upon the stage. Before the Restoration, the characters of women had been played by boys and young men. It is to this introduction that we owe the brilliant display of passionate tenderness evinced in the female characters of Otway (author of "The Orphan" and "Venice Preserved"), and, despite some rant and fustian, of Lee. Sir George Etherton, Wycherley, and others, were outrageously licentious; and Congreve, slightly less so, was brilliantly witty. The 18th century ushered in genteel comedy, a 1 entertainment that exhibited the foibles of the higher classes; comedy of intrigue, in which plots and surprises succeed each other; and English opera. (See OPERA.) Addison achieved a success with "Cato," a stately play in the classical manner. Farquhar and Mrs. Centhise produced lively comedies early in the century; at a later period, Goldsmith produced two of the best of English comedies, and afterwards Arthur Murphy and Richard Cumberland wrote some good plays. To Garrick the stage is indebted for a revival of the plays of Shakespeare; and to Sheridan for a description of comedy that, to the polish and wit of the authors of the Congreve and Farquhar school, added humorous and characteristic dialogue. George Colman the elder and George Coleman the younger both contributed admirable comedies to the rich repertory of the drama; and Maturin, Lord Byron, Coleridge, and Joanna Baillie, were the authors of the tragedies produced in the early part of the present century. The two Kembles and Mrs. Siddons, Edmund Kean, Charles Young, and Miss O'Neil, were of the same era, one of the most brilliant of which the English stage can boast. Sheridan Knowles produced some admirable plays; and Douglas Jerrold and Dion Boucicault were among the most successful writers of comedy; Westland Marston and Sir Edward Bulwer-Lytton rank high in the list of successful dramatists. The latter produced two of the most successful plays ever put upon the stage, "The Lady of Lyons" and "Richelieu." Great efforts were made by Macready at Covent-garden and Drury-Lane, and by Charles Kean, at the Princess's, to maintain a high school of dramatic art, and to place Shakespearean and other plays upon the stage with appropriate and beautiful scenery and costumes; and, at the present time, Henry Irving is, with admirable taste and great ability, treading in their footsteps. Among recent dramatic authors, the most successful have been Mr. Boucicault, Mr. Robertson, Mr. Byron, Mr. Albery, Mr. Madison Morton, Mr. Gilbert, Mr. Willes, Mr. Palgrave Simpson, and Mr. Sims.

ENGLISH LITERATURE is modified in a highly important manner by the history of the

English people. Eras of great literary progress have always been found to succeed those periods of the nation's history characterized by important social changes, and sometimes by national revolutions. The literary annals of England may be conveniently arranged into three periods:—1, That antecedent to the Norman Conquest; 2, that extending from the Norman Conquest to the English Reformation; and 3, from the English Reformation to the present day. 1. *The time preceding the Conquest* has a literature composed in three distinct languages, and possessing merits of a highly important character. First, there is the Celtic, spoken by the northern Scots, the Irish, and the Welsh. The "Annals of the Four Masters," compiled by Tigernach, records the doings of the Irish people so early as the fifth century. Then there are the Scottish Ossianic poems, which, if they were genuine, would lead back the reader to the third century. Among the Welsh people, again, their triads are said to extend as far back as the sixth century. The cultivation of Latin literature in this country succeeded the introduction of Christianity into it. Literary effort soon followed, and we meet as first in this honourable list the names of Alcuin, of Erigena, and of Bede. The "Gleeman's Song," the "Battle of Finnesburgh," and the "Tale of Beowulf," are the only stories of a Homeric cast which the Anglo-Saxon people possess. The latter, in particular, resembles closely, in some of its vividly picturesque touches, the old *Iliad* of Troy. Doubtless such remarkable religious poems as those of the monk Caedmon deserve to be mentioned in any summary of the literary history of England. Yet the Anglo-Saxon people were comparatively poor in poetry; but they were eminently simple and direct prose writers. Portions of the sacred Scriptures, Anglo-Saxon chronicles, sermons, glossaries, grammars, geographies, medical works and dialogues, in their tongue, were all composed by their leading writers, Aldhelm, Bede, and Alfred. It was chiefly through the influence of the latter, who discarded Latin in all his communications with his subjects, that the Saxon tongue made so decided a start as it did during the ninth century. 2. *The Conquest* brought with it a change of language and a change of manners in the court; but it could hardly modify the speech of the average Englishman of those days. It is owing chiefly to the influence of Chaucer and Gower, and to the literary class generally, that French came materially to modify the existing language of England. These men knew French, because it was the tongue in which many interesting books were written; and they gave it to the people of England in the firm belief that an acquaintance with it would advance their taste and improve their manners. Classical and theological learning were now much prosecuted. The founding of the universities, and the extension of the monastic system, gave leisure for scholarship and induced thought. The close political intercourse that there was then with France improved both England and France in learning and in social manners. Such names as Lanfranc and Anselm, as Hales and Duns Scotus, as Michael Scott and Roger Bacon, show how entirely men were devoted, as they usually are in the infancy of a literature, where external peace and leisure will permit of it, to philosophy in both its branches of physical and metaphysical. The historical writers of the time, among whom we must mention William of Malmesbury, Geoffrey of Monmouth, Giraldus

Cambrensis, and Matthew Paris, afford an agreeable offset to those subtle speculators. Of course the learned language of the time was altogether Latin. Personal satire and invective were much rife in Mapes's day, than they became; and the weak king John and the charter of Runnymede afforded those disposed to employ those local squibs only too good targets to aim at. The "*Gesta Romanorum*," a singular medley of tales, apologues, and so forth, told often with much humour and pathos, have an interest of their own; and they possess, likewise, a borrowed grace. They have been instrumental in suggesting some of the noblest themes in our recent literature, and thus have double claims on our affection. The "*Merchant of Venice*" and "*Marmion*," to go no farther from home, owe much to those old "*Gesta*." These compositions resembled closely in their structure the French "*Fabliaux*," and have had a much greater influence on our literature. The fine old romances of "*Havelok the Dane*," the "*Gest of King Horn*," "*Bevis of Hampton*," "*Guy of Warwick*," and last and best of all, those fine legends written mostly in French, but composed by Englishmen, to celebrate the greatness and the downfall of the mythical king Arthur and his Knights of the Round Table, no English student of this literature will pass by. Meanwhile, the vernacular tongue of England, driven from the monasteries and the universities, was almost solely dependent for its patronage and subsistence on the common people of the land. It had no literature worth mentioning at this period; and it was rapidly merging into the Semi-Saxon, as it is called, of which the earliest and best representative is the "*Brut*" of Layamon. The fourteenth and fifteenth centuries brought in a new era into English history and English literature. Crecy and Poitiers were fought, and John Wycliffe and Geoffrey Chaucer were born. The former preserves our ceaseless regard for his translation of the sacred Scriptures, the first ever effected by one hand (1380), and except Sir John Mandeville's travels (1356), it is the first specimen of early English prose writing in our language. We can hardly do more than name a great many authors who crowd the canvas of the fifteenth and sixteenth centuries. Such are John Lydgate, whose "*London Lackpenny*" (about 1430) is still read with interest; Alexander Barclay, author of the "*Ship of Fools*" (1509); John Skelton, author of the satire called "*Colin Clout*" (died 1529); and Sir Thomas Wyatt, who died in 1541. The prose writers of this period are Sir John Fortescue, chief justice of the King's Bench under Henry VI.; William Caxton who holds the honourable place of being the first who introduced printing into Britain (1474), his first book composed with types being the "*Game of Chess*"; Fabian (1512); Hall, an English lawyer and chronicler (1547); and Tyndale, who was burnt for heresy in 1536. The Scotch poetry of the period almost matches in interest and importance that of the south part of the island. James I., king of Scotland, led the way with his "*Queen's Quhair*;" Wyntoun, the chronicler (1420); Blind Harry, the author of the once highly popular performance known as "*Sir Wm. Wallace*;" Robert Henryson (died 1508), and wrote a beautiful poem called "*The Testament of Cresseid*;" Gavin Douglas, whose best work, among a considerable number, is, without doubt, his translation of Virgil's "*Æneid*" into Scot-

fish verse; and last and greatest of the poets of this country until the time of Burns, stands William Dunbar (died about 1520), whose "Daunce of the Seven Deadly Sins" showed him to have possessed imagination and humour, pathos and tenderness, boldness and vigour, in a very remarkable degree. 3. *The period extending from the English Reformation to the present time* eclipses in brilliancy and grandeur all the other eras of English literature. As the same sequence of events reigns in letters as in social life, the character of one era always determines the nature and complexion of the succeeding one. This is very observable in the Elizabethan age, on which we are now entering. The discovery of printing, and the discovery that all was not gospel that came from Rome, were two as potent instruments as could possibly be put into the hands of literary men. What Skelton and Dunbar had begun, Spenser and Shakespeare carried to a splendid consummation. The names of Latimer, of Crammer, of Ridley, and of Sir Thomas More, are prominent in the earlier years of the Tudor period. Roger Ascham, the learned tutor of Lady Jane Grey, and the writer of an excellent work, the "Schoolmaster," is another admirable miscellaneous writer of the time. As the English drama forms the subject of a separate article, we need only mention here Sackville, who wrote the "Mirrour for Magistrates," and Brooke, author of the "Tragical History of Romeus and Juliet;" and the Scotsmen, Sir David Lyndsay, Boece, Major, Melville, and George Buchanan. George Buchanan is universally admitted to have been one of the finest classical scholars who has appeared since the age of Augustus. He mingled much in the politics of his time, yet found leisure to nurse his genius in the retired ways of academic seclusion. The founding of the Scottish universities, and the institution of grammar and parish schools, which owed their origin entirely to the indefatigable labours of the reformer Knox, bade fair to give to Scotland an important place in the history of Great Britain. We now come close to the greatest era in the history of English literature. In all the essentials of true genius this age can give way neither to the best days of ancient Greece or Rome, of modern Italy or France. The greatest men the nation has ever produced come trooping up at the mention of Queen Elizabeth's name. There are Shakespeare and Spenser and Sidney; there are Raleigh and Hooker and Jeremy Taylor; there are many others beside, "men, all of them," to adopt the language of Francis Jeffrey, "not merely of great talents and accomplishments, but of vast compass and reach of understanding, and of minds truly creative." About the close of this period a number of sweet poets arose, who mostly wrote in a lyrical measure, though some of them were didactic; such as Fletcher and Browne, Drayton and Wither, Quarles and "holy George Herbert." During the period of the Restoration and the Revolution, literature was much degraded by the profligacy and indecency of some of the most prominent writers. Yet the age was not wholly corrupt, for it could boast of such distinguished theologians as Baxter, Owen, Calamy, Collier, Leighton, South, Tillotson, and Barrow. This was also the time when Milton, who stands in the front rank of poets, lived and sung of Paradise Lost and of Paradise Regained, writing "something," as he himself hoped, "which

posterity would not willingly let die." Marvel ridiculed the High Church, and Butler, of "Hudibras" fame, burlesqued Dissent; Walton angled, Locke speculated, Newton discovered, and John Dryden "found the English language of brick, and left it of marble." The literary history of the 18th century, and particularly of the reign of Queen Anne, has been censured severely by some, and praised to excess by others. It was natural that the critics of the period should be inclined to over-estimate the influence of the literature among which they lived; but many writers of the present day have decried it, possibly with a considerable touch of truth, for its polite scepticism and for its hollow insincerity. It has been glorified by its advocates as the Augustan age of English literature, and decried by its enemies as an age of utilitarianism and satire. The truth is, that both in poetry and in prose the form had come to be observed much more than the matter. Pope, of course, is the poetical chief of this age; and while he, no doubt, indulged much more than was meet in the most polished and most personal satire, he nevertheless, in some of his poems, displays a fine power of lofty contemplation, and a faculty of expression so brilliant, so happy, graceful, and copious, that we look in vain for the match of it in the entire range of English poetry. Addison is unrivalled for grace and ease; Swift has no equal in rude, pointed vigour; and later on came Johnson, regarded as the literary dictator. Young, Akenside, Thomson, Gray, Collins, Beattie, and Cowper were conspicuous in poetry. The greatest poet of the century was Robert Burns. Its novelists were Richardson, Fielding, Smollett, Sterne, and Goldsmith (also a poet); its historians were Hume, Robertson, and Gibbon; and its philosophers were Butler, Berkeley, Clarke, Shaftesbury, Hume, Paley, and Adam Smith. Horace Walpole, as a letter-writer and antiquary, has a peculiar reputation. The first half of the 19th century opens with a brilliant galaxy of poets. Coleridge, Wordsworth, Scott, Byron, Shelley, Keats, Campbell, Moore, and Southey, are the poets of this time. There might be periods of greater originality, but there has been none so various, so diverse, and so fresh of its kind, as the period we are describing. This is the age of reviews and periodicals, and, indeed, of novels and romances. The great reviewers and essayists of this century are Jeffrey, Sydney Smith, Hazlitt, John Foster, De Quincey, and Carlyle; the great preachers are Hall, Chalmers, and Irving; the philosophers are Stewart, Mackintosh, Bentham, Brown, Hamilton Stuart Mill, and Spencer; the men of science are Owen, Whewell, Faraday, Sedgwick, Darwin, Tyndall, and Huxley; the novelists are Dickens, Thackeray, Bulwer Lytton, Charlotte Brontë, "George Eliot," Trollope, Black, and Hardey; the historians are Hallam, Macaulay, Thirlwall, Grote, Milman, Carlyle, Froude, Green, Stubbs, and Freeman. Ruskin is eminent as a writer on art. In poetry we have Tennyson, the Brownings, Matthew Arnold, Morris, and Swinburne, besides a host of others. The most remarkable development of literature, however, in this country has been in connection with periodical literature, in the form of high class magazines, an almost limitless diffusion of popular literature, and, most prominently of all, the newspaper press. (See NEWSPAPER.) America has been active in sustaining her credit as a scion of Saxon stock, and can number among her writers W. Irving,

Poe, Longfellow, Cooper, Prescott, Emerson, Bancroft, Hawthorne, Lowell, Bryant, Dana, Motley, Whittier, Sigourney, Bret Hart, and many other writers of great original talent.

ENGRAILED, *en-graild'* (Fr., *engrêler*, to indent in curved lines, to variegate), the name given to a particular form of partition line used in Heraldry. It consists of a series of semicircular or scalloped indentations.

ENGROSSING, *en-grose-ing* (Ang.-Nor.), among lawyers, means the making of a fair copy of a deed upon stamped paper or parchment, in clear legible characters.

ENHARMONIC, *en-har-mon'-ik*, a term employed by the ancient Greek musicians to designate that of their three *genera* or scales which consisted of quarter-tones and major thirds. Besides this they had originally another kind of enharmonic much simpler and easier in execution, and upon which the theorists of the old school considered the quarter-tones or *diesis* as innovations too refined and artificial. There is also a species of enharmonic called *equi-vocal* or *enharmonic change*, in which the notation is altered, but the same keys of the instrument are used, and although the notes are theoretically distinct there is no perceptible difference of sound.

ENIGMA, *e-nig'-ma* (Gr., *ainigma*), a description or definition of a thing given in obscure or ambiguous terms, with the object either of hiding what the thing is, or of occasioning its discovery to come as a surprise. In ancient times enigmas were considered of such interest that envoys were sent between the Eastern monarchs solely for the purpose of solving them. They were often used as the vehicles for conveying truths of the greatest importance. As a matter of literary display, the enigma has been a favourite at many times and among many nations. In France, during the 17th century, it was much in vogue; in fact, several ponderous treatises were written concerning its nature and history. Some of the greatest poets in Germany did not disdain to write enigmas, and several of Schiller's are incorporated in his published works.

ENSEMBLE, *an(g)-san(g)ble'* (Fr., all together), the general effect produced by a musical performance, a picture, or a drama, independently of the special or sifter defects of parts.

ENTABLATURE, *en-tab'-la-ture* (Fr., *entablement*), the whole of the superstructure that is supported by two or more columns which sustain the roofing of a portico or entrance to any building of importance built in the classic style of architecture. The entablature sometimes supports a pediment with sides sloping downwards from the centre to either end. It is divided into three parts—the architrave, the frieze, and the cornice. (See ARCHITRAVE, FRIEZE, CORNICE.) The depth of the entablature and its component parts is determined by the diameter of the lower end of the shaft of the column. (See ARCHITECTURE.) The entablature in each of the five orders of architecture is distinguished by certain methods of treatment and decoration. The Tuscan entablature consists of a plain architrave and frieze, separated by a narrow projecting fillet, and surmounted by a cornice formed of simple mouldings, a fillet, and cymatium. In the Doric entablature, *guttae*, or rain-drops, are attached to the under-side of the fillet or *tenia* that separates the architrave from the frieze,

immediately under the triglyphs that ornament the latter; mutules are also placed on the cornice above the triglyphs. In the remaining orders the architrave is broken into two or more fillets, or *facias*, projecting one above another, with an ornamental moulding running along the upper part of each, and immediately under the fillet above it. The frieze is generally plain in the Ionic order, as in the Doric, although it is sometimes enriched, as were also the *metopes*, or rectangular spaces between the triglyphs on the frieze of the last-named order; but in the Corinthian and Composite orders it was richly adorned with sculpture in bas-relief. The cornice in the Ionic, Corinthian, and Composite orders is supported on a moulding enriched with dentils, and finished above with an ogee moulding; but in the Corinthian order the corona of the cornice is supported on modillions projecting from a band immediately below it, and surmounting the ogee moulding that has just been mentioned; while in the Composite order mutules are substituted for the carved modillions.

ENTAYLE, OR **ENTAIL** (probably from the Italian *intoglio*), richly cut ornaments in architecture.

ENTHUSIASM, *en-thu'-ze-izm* (Gr., *enthousiasmos*, inspiration), is an exalted condition of mind, in which the imagination is inflamed and exalted, thereby conceiving and expressing extraordinary and surprising things. It furnishes an impetus to the will and moral nature, and is the motive power of all great conceptions of possibility. The effect is contagious, and one enthusiastic leader, believing in his mission to achieve a great work, soon finds adherents as enthusiastic as himself. Enthusiasm encourages in danger, and gives a powerful support in sufferings. When allied with great intellectual power and purity of sentiment, it produces heroes; when the reasoning power is small, and the moral nature unsympathetic, the result is fanaticism.

ENTHYME, *en'-the-meem* (Gr., *enthymema*, from *en*, and *thumos*, the mind), is a term employed in Rhetoric, introduced by Aristotle, and which since his time till recently has been almost universally misunderstood. It has generally been defined to be an imperfect syllogism, having one or other of its premises not expressed, but understood. Though several writers before his time had pointed out the error of this definition, Sir W. Hamilton was the first to call general attention to it. An enthymeme differs from a syllogism, not in the accident of suppressing one of its propositions—either may do this, or neither; the difference is essential, and in the nature of the matter; that of the syllogism being certain, that of the enthymeme probable, and drawn from the province of opinion.

ENTRACTE (Fr., between the acts), a piece of music performed between the acts of a play.

ENTRESOL, *avn(g)'tre-sol* (Fr.), a term borrowed from the French, and used to denote a low intermediate story introduced between two loftier ones. It corresponds to the Italian *mezzanine* in its use and purpose.

ENVY, *en'-ve* (Fr., *envier*), in Ethics, is defined by Locke to be an uneasiness of mind, occasioned by the consideration of a good we discover in the possession of another person, whom we deem less worthy of it than ourselves. It is char-

acterised by a degree of sorrow that the good contemplated should escape ourselves, and of anger that it should fall to the share of another.

EOLIAN HARP. (*See* **ÆOLIAN HARP.**)

EPAULEMENT, *e-pawl'-ment* (from Fr., *épaule*, shoulder), the name given to a parapet, which is thrown up as a means of protection, and used in the construction of field-works. It is also, and more properly, applied to a mound of earth thrown up as a protection against an enfiling fire.

EPAULETTE, *ep'-o-let* (Fr.), an ornamental badge worn upon the shoulder by military and naval officers. A few years ago the epaulette was abolished in the English army, the sash being substituted for it.

EPHEMERIS, *e-fem'-e-ris*, a name sometimes applied generally to Almanacks, but more commonly limited to astronomical tables, giving the daily places of the sun, moon, and planets. The "Nautical Almanack" is a very important work of this kind.

EPIC POETRY, *ep'-ik* (Gr., *epos*, a discourse or narrative), is a kind of poetry which has outward objects for its subjects, and is thus distinguished from lyric poetry, which deals with the inner feelings and emotions of the mind. The distinction is general, for there are few productions to which it can strictly apply; but they belong to the one class or the other, according to the predominating character. The earliest specimens of this form of art probably consisted of simple tales rhythmically arranged, and recited to a very simple musical accompaniment. The longer and more artistic epic poems, however, embrace an extensive series of events and the actions of numerous personages. The epic poetry of the early Greeks naturally divides itself into two classes—the heroic or romantic epics of Homer, and the meratic epics of Hesiod, the one dealing with the political, the other with the religious life of the Greeks. The "Iliad" and "Odyssey" of Homer present us with the finest specimens of this class of poetry that have ever appeared. The sacred poetry of Hesiod partakes very much of a lyrical character. The "Æneid" of Virgil is not equal to the "Iliad" of Homer as an epic; its superiority depending more on beauty of language and arrangement than on anything in the story. The greatest epic of modern times is the "Paradise Lost" of Milton. Dante's "Divine Comedy," however sublime in style, is destitute of that unity of event or action necessary to constitute a great work of this class. The "Jerusalem Delivered" of Tasso is regularly and strictly an epic, and adorned with all the beauties that belong to this species of composition. The epic poem is of all poetical works the most dignified, and, at the same time, the most difficult in execution; and hence it is that so very few have succeeded in the attempt to produce a really great epic.

EPIGRAM, *ep'-e-gram* (Gr., *epigramma*, an inscription), a term originally applied, as shown by its derivation, to the inscriptions on the tombs and monuments of the ancient Greeks. They were generally written in verse, and showed great simplicity of style. Usually they were either dedicatory, descriptive, amatory, or elegiac. They were seldom humorous; and their chief merit consisted in the justness of a single thought conveyed in harmonious language. The ancient

Romans, in their acceptance of the term epigram, seem to approach nearer to the idea of modern epigram. Catullus and Martial were amongst their most famous epigrammatists. In modern times an epigram is considered to be a short poem usually consisting of from two to eight lines, in which some striking or ingenious thought is expressed; whether it be serious or humorous is a matter of indifference. The French have always excelled in this kind of writing. The Germans have usually combined moral proverbs with their epigrams; but those of Schiller and Goethe are generally satirical. Pope, Byron, Burns, and Moore, in this country, have written epigrammatic satire with the greatest success.

EPIGRAPH, *ep'-i-graf* (Gr., *epi*, upon, *grapho*, I write), a short inscription upon architectural or other monuments; for the purpose of denoting their use or appropriation. In some instances the epigraph is worked into the ornamental details.

EPILOGUE, *ep'-e-log* (Gr., *epi*, on or after; *logos*, a speech), amongst the ancient Greeks, the end or summing up of a discourse. In English, the term is applied to the short poem, or prose address, delivered in a theatre at the conclusion of a play. The intention of the epilogue is to create a kind and friendly feeling between the actor and the audience; and it frequently alludes to the events, fashions, and follies of the day.

EPISODE, *ep'-e-sode* (Gr., *episodesos*).—In the Greek drama the term *eisodos* was applied to the entrance of the chorus upon the stage, and the *episodion* to that part of a play which lay between two choral songs. As these recitations in the early history of the Greek stage had nothing to do with the choral part, the term *episodion*, with its Latin derivative *episodum*, began to be applied to any incidental narrative or digression in a poem which the poet has connected with the main plot, but which is not essential to it. In this light, the catalogue of ships is considered an episode in the "Iliad," and the description of the war in heaven is considered an episode in "Paradise Lost." Episodes should grow naturally out of the subject, and should either point out important consequences or develop hidden causes. The episode describing the destruction of Troy, in Virgil's "Æneid," is an episode of this kind.

"EPISTOLÆ OBSCURORUM VIRORUM," *epis'-to-le ob-sku'-ro-rum vi-ro'-rum*, (Latin, letters of obscure men).—A collection of satirical letters professing to have been written by German professors and ecclesiastics. The first part appeared at Hagenau, in 1515; and there can be no doubt that the exposure of the works and modes of life of the scholastic teachers and monks, their follies and pedantic speech, in a considerable degree cleared the way for Reformation. The letters were addressed to Ortuinus Gratius, a man notable for his arrogance and intolerance. There has been almost as much discussion about the authorship as about that of the renowned "Junius" letters in this country. Probably many writers contributed, but it is generally supposed that the chief part was the work of Wolfgang Angst, a witty and learned printer of Hagenau, Ulrich von Hutten, and Erolus Rubeanus. The "Epistolæ" originated in the persecution by the Church party of Reuchlin, one of the most eminent scholars in Europe, and a man of remarkable intellectual

powers, who with Erasmus and others were the leaders in a revival of learning, especially the study of the Hebrew and classical languages. He was attacked by the Dominicans and others, who denounced him as the advocate of Jewish blasphemy, because he studied and elucidated the Rabbinical writings. The intolerant ecclesiastics actually obtained from the emperor an edict commanding that all Hebrew books, with exception of the Bible, should be searched for and burned, "on the ground that Jewish literature was nothing but a stock of libels on the character of Christ and Christianity." Reuchlin maintained his ground, asserting that "a large proportion of the Rabbinic writings were not of a theological character at all, and consisted of works not only innocent, but highly useful; and that the religious books themselves, while not, in general, such as they had been malevolently represented, were of the greatest importance to Christianity, as furnishing, in fact, the strongest arguments in refutation of the doctrine being defended." Reuchlin's works were burned in public, and the pulpits "rang with calumnies against their victim." Before his persecution Reuchlin had published a volume of letters from his correspondents, some of the most eminent men in Germany and England, entitling the volume "Epistolæ Illustrum Virorum"—letters from illustrious men. When the persecution was at its height there was "launched from an unknown hand a pasquil against the persecution of Reuchlin; it fell among them like a bomb, scattering dismay and ruin in its explosion." This was the "Epistolæ Obscurorum Virorum," professing to be letters addressed to Ortuinus by his friends. A writer in the *Edinburgh Review* (March, 1831) says—"The plan of the satire is extremely simple—to make the enemies of Reuchlin and of polite letters represent themselves; and the representation is managed with a truth of nature only equalled by the absurdity of the postures in which the actors are exhibited. Never were unconscious barbarisms, self-glorious ignorance, intolerant stupidity, and sanctimonious immorality so ludicrously delineated; never did delineation less betray the artifice of ridicule. The 'Epistolæ Obscurorum Virorum' are at once the most cruel and the most natural of satires; and, as such, they were the most effective. They converted the tragedy of Reuchlin's persecution into a farce; annihilated in public consideration the enemies of intellectual improvement; determined a radical reform in the German universities; and even the friends of Luther, in Luther's lifetime, acknowledged that no other writing had contributed so powerfully to the downfall of the Papal dominion. . . . Morally considered, indeed, this satire is an atrocious libel, which can only be palliated on the plea of retaliation, necessity, the importance of the end, and the consuetude of the times. Its victims are treated like vermin, punished without law, and exterminated without mercy." Herder remarks that this satire "effected for Germany incomparably more than 'Hudibras' for England, or 'Gargantua' for France, or the 'Knight of La Mancha' for Spain." The "Epistolæ" were denounced in a Papal bull and placed in the *Index Expurgatorius*. There have been many editions, two of the best having been published respectively at Leipzig and Hanover in 1827.

EPITAPH, *ep'-taf* (Gr., *epi*, upon; *taphos*, a mound, or monument over a grave), the inscrip-

tion upon a funereal monumental tombstone. Among the classical nations of antiquity, epitaphs were at first only inscribed upon the tombs of heroes and those who had made themselves distinguished in their country. Among the Greeks, the term was also applied to those verses which were sung in memory of a deceased person on the day of his funeral, or on its anniversary. Amongst the Romans, every family who consecrated a tomb to their relations had the privilege of inscribing an epitaph upon it. Both Greek and Roman epitaphs were distinguished by three qualities—brevity, simplicity, and familiarity. The Roman tombs were generally situated by the side of the public road, and the epitaphs usually commenced with the words "Sta, viator"—Stop, traveller. Sepulchral inscriptions seem to have first taken their origin in England in the 11th century. At that time they were always written in Latin. In the 13th century, most of the epitaphs were written in French; but the clergy and religious bodies still continued to write in Latin. English epitaphs were not written till the middle of the 14th century. The modern English, French, and German epitaphs are more numerous and varied than those of any other time or nation. They exhibit every variety of style and sentiment, from heraldic prolixity and epigrammatic conceit to majestic gravity. Many epitaphs display considerable poetic power and grace. A great number of collections of epitaphs have been published, mostly including phrases and verses of a broadly comic style. It is extremely doubtful whether many of these are genuine. The most famous authentic epitaphs existing in England are probably that over Shakespeare's grave; that (commonly attributed to Ben Jonson, but probably written by William Browne) inscribed on the tomb of the Countess of Pembroke; the epitaph on Milton by Dryden; and that which, in St. Paul's Cathedral, commemorates Sir Christopher Wren. The last, however, can scarcely properly be described as an epitaph, as it is not inscribed on the tomb (which is in the crypt), but in the nave, over the northern door.

EPITHALAMIUM, *e-pe-thal-ai'-me-um* (Gr., *epi*, on; *thalamos*, a bridal chamber), a species of poem sung by the ancient Greeks and Romans near the bridal chamber of a newly-married couple. Poems of this character were written by Anacreon, Stesichorus, and Pindar. The epithalamium written by Catullus on the occasion of the marriage of Peleus and Thetis has always been much admired; and that written by the English poet Spenser has been described as one of the most gorgeous in all literature.

EPITHET, *ep'-e-thet* (Gr., *epitheton*, from *epi*, upon, and *tithemi*, I lay or place), is applied to an adjective expressing some real quality of the thing to which it is applied, or an attributive expressing some quality ascribed to it. Epithets are often used in poetry and rhetoric. Epithets are also sometimes applied as surnames, or as persons' second appellations, and were anciently bestowed very freely on account of peculiarities, either of body or mind—even kings not being exempt from them; as Edward Longshanks, Richard Cœur de Lion.

EPOCH, *e'-pok*, in Chronology, the term epoch is used synonymously with era, and signifies a certain time from which we begin to count a series of years. (See ERA.)

EPODE, *ep'-ode*, the last part of the Greek chorus, sung after the strophe and antistrophe.

EQUESTRIAN GAMES, *e-kwes-tre-an* (Lat., *equus*, a horse), among the ancient Romans, were sports in which horse-racing was the principal amusement. They were divided into six classes—the *prodromus* or plain horse-race, the chariot-race, the decursory race about funeral piles, the *ludi severales*, and the *ludi neptunales*.

EQUESTRIANISM. (See HORSEMANSHIP.)

EQUESTRIAN ORDER. (See EQUITES.)

EQUESTRIAN STATUES. (See STATUES.)

EQUIPAGE, *ek'-we-paij* (Fr., *equiper*), a term applied in general language to the carriage, horses, and liveries of a gentleman when abroad. The word is also applied to the furniture of an army or body of troops. In this sense it includes arms, artillery, utensils, provisions, &c. Camp equipage includes tents and things necessary for accommodation in camp; while field equipage consists of arms, artillery, waggons, tumbrils, &c.

EQUITES, *ek'-we-teez* (Lat., *equus*, a knight, a horseman).—The equites, or knights, or "equestrian order," were a large and important body in ancient Rome, originally founded by Romulus, who divided his people into three tribes, and selected a hundred from each to serve on horseback as his body-guard. Their numbers were increased by succeeding kings, and at last they became an order in the state, known as the equestrian order, in which any one could be enrolled who was possessed of the requisite amount of property. They ranked next to the senators, and occupied seats in public places of amusement that were especially set apart for them. They were distinguished by wearing a gold ring, and a border on their vestments a little narrower than that worn by the senators. They always formed the chief part of the Roman cavalry, if not the entire body, and were commanded by an officer of high rank, who was styled *magister equitum*, or master of the horse.

ERA, *e'-ra* (Lat., *era*), the name given to a point of time that is marked by some remarkable occurrence, and from which it has been consequently determined to count the series of succeeding years. Various eras have been chosen by different nations, but fixed, indeed, in an arbitrary manner, from which they have reckoned the principal events occurring in their history in chronological order. The most important of these is the Christian era, which was invented by a monk, Dionysius Exiguus, in the year 532 A.D. The first year of this era was supposed to be the year in which our Saviour was born; but this supposition has been found to be incorrect, as the birth of Christ is now allowed to have taken place four years previously. From this era the majority of the Christian nations of the world reckon events both backwards and forwards; any event which happened before this date being spoken of as taking place in the year — before Christ, or B.C., and any which has happened since, as occurring in the year — of our Lord or A.D. In the system of chronology generally adopted, the date of the creation of the world is fixed at 4004 B.C.; but this is uncertain, and many different dates have been assigned to this event: thus, according to the Septuagint, it took

place in the year 5872 B.C.; according to the Julian period, 4710 B.C.; and according to the mode of reckoning used by the Jews, 3761 B.C. The other principal eras from which events have been reckoned by the Greeks, Romans, Hindoos, and Mahometans, are as follows:—The Greeks reckoned by Olympiads, or periods of four years each, the first year of the first Olympiad coinciding with the year 776 B.C. The Romans reckoned from the building of the city Rome, which took place 753 B.C., in the fourth year of the sixth Olympiad. The principal Hindoo eras are those of the Cali Yuga and Vicramaditya, which correspond with the years 3102 and 56 B.C. The Mahometan, or Mahomeddan era, called the Hegira, dates from the flight of Mahomet from Mecca, which took place 622 A.D.

ERECHTHEUM, OR **ERECHTHEIUM**, *e-rek-the'-um*, one of the most important temples of ancient Athens, which stood on the north side of the summit of the Acropolis. The temple that originally occupied the site was built by Erechtheus, who reigned over Attica in the latter part of the 14th century B.C. It was designed for the reception of the image of Minerva, carved out of the trunk of an olive-tree, which was always a special object of veneration to the Athenians. Erechtheus was buried in the temple; from which circumstance the name of Erechtheum was afterwards given to that which was built on the same site, about 400—395 B.C., the ruins of which may still be seen.

ERL KING, a mythical character in modern German literature, represented as of a gigantic figure, and wearing a golden crown and trailing garments, who carries away children to the supernatural regions. There is no such personage in ancient German mythology, and the conception arose from a mistranslation by Herder of a Danish ballad, in which the Eller Konge, or elf-king, appears. Herder was not apparently aware that the Danish word "elle" signifies not only an alder tree, the German name of which is "erle," but also an elf, or fairy. He thought the fairy monarch was known as the King of the Alders, and English and French translators have from him imagined that the myth of the Erl King originated in the ancient tree-worship.

ERMINE, *er'-min*, in Heraldry, the name of one of the furs used for the lining of mantles, crowns, coronets, and caps of maintenance, as well as for the field and charges of armorial bearings. It is figured by black spots and stripes or tails, on a white field, each stripe having lines, or hairs, diverging from it, one on either side, and being surmounted by three spots, one placed at the extremity, and the others just below it on each side of the point.

EROTIC, *e-rot'-ik* (Gr., *eros*, love), a term chiefly applied to poetry, or painting, of which the passion of love is the predominating sentiment.

ERRATA, *er-rai'-ta* (Lat.), a term applied to those errors which have been overlooked in the composition or impression of a work. A list of the errata is generally placed at the beginning or end of a book.

ERSE, *ers* (a corruption of Irish), is a name given by the lowland Scotch to the Gaelic, or language of the inhabitants of the Highlands, from their being supposed to have come over from Ireland. (See GAELIC.)

ESCALADE, *es-kal-laid'* (Fr., from Lat., *scala*, a ladder), a term applied, in military language, to a furious attack made by troops on a fortified place by means of ladders.

ESCALLOP, *es-kal'-lop*, in Heraldry, the escallop-shell is a frequent bearing in the escutcheon, it having been the pilgrims' ensign in their expeditions to the Holy Land.

ESCARP, OR **SCARP**, *es'-karp* (Fr., *escarper*, to cut, strip), is that side of the ditch which forms the lower part of the rampart of a fortress, and which is below the natural level of the ground, or the summit of the glacis on the other side.

ESCARPMENT, *es-karp'-ment*, a term applied to the steep and precipitous side of any cliff or hill, formed, in some cases, by the action of water, and in others by the abrupt termination of geological strata.

ESCUTCHEON, *es-kutsh'-un* (Fr., *écusson*, a shield), in Heraldry, the name given to the shield on which armorial bearings are depicted. The armorial bearings of a lady entitled to bear arms, being unmarried, or a widow, are emblazoned on a shield in the form of a lozenge.

Escutcheon of Pretence.—When a man marries an heiress or co-heiress, he places the armorial bearings of his wife's family on a small shield, exactly in the centre of his own coat. This signifies that the children by such a marriage inherit the coat armour of their mother's family, as well as real property, and are the representatives of that family, as well as that of their father. On the death of the father, the children bear the armorial bearings of their mother's family quarterly with the paternal coat. Sometimes the escutcheon of pretence is given as a reward of honour for some distinguished service.

ESPLANADE, *es-plan-aid'* (French), the open space that should surround a citadel, and intervene between the main ditch and any fortifications that may be thrown up round the town near which the citadel is situated. The term is now applied to a public promenade facing the sea.

ESPRINGAL, OR **SPRINGAL**, *es-pring'-al*, in ancient warfare an engine for throwing darts or other missiles.

ESQUIRE, *es-kwire'* (Fr., *écuyer*, a shield-bearer).—In the Middle Ages and the days of chivalry, the esquire was a young gentleman of good family in immediate attendance on a knight, who carried his shield and performed many duties in his capacity, which were not, however, of a menial nature. The esquire first served as a page in the knight's household. When he was old enough, and possessed of sufficient strength and skill to bear arms, the page was promoted to the rank of esquire, and attended the knight at tournaments and in the battle-field. He eventually became a knight himself, after exhibiting such prowess in the field or elsewhere as might entitle him to claim the spurs and other insignia of a knight. In the present day, the title of esquire should give the bearer precedence over gentlemen properly so called, who are entitled to bear coat-armour; but is of no value, owing to its universal assumption by those who have no claim whatever to attach it to their names. The following are those who are properly entitled to this appellation:—The sons of younger sons of dukes and marquises; the younger sons of earls, viscounts, and barons; the eldest sons of these younger sons just mentioned, with those of baronets and

knights; officers of the royal household; captains in the army and navy, and all officers above the rank of captain; doctors of law and medicine, barristers, sheriffs of counties, magistrates while in the commission of the peace, and Royal Academicians.

ESSAY, *es'-sai* (Fr., *essai*, a trial, an attempt), a name given to a species of composition which is characterized by greater latitude of construction than is allowed in any other species of composition, and it differs from narrative in generally treating of mental or moral qualities. It is defined to be "in general, a short disquisition on some subject of taste, philosophy, or common life." It is thus applied to periodical papers published at different times on subjects of general interest; as morals, criticism, matters of taste, &c. This species of writing may be said to have originated in this country in the beginning of the last century, by the publication by Addison and Steele of the *Tatler*. The *Tatler* was succeeded by the *Spectator*, to which Addison was the chief contributor; and the *Spectator* was followed by the *Rambler* of Dr. Johnson. Numerous works of this class appeared in the latter half of the 18th century, among them the *World* and the *Lounger*, which attained some reputation, but are rarely read now. Some of the most eminent writers of this century, as Sidney Smith, Jeffrey, Macaulay, and Carlyle, have reprinted critical and historical articles contributed to the great quarterly Reviews, with the title of "Essays."

ESTUARY, *es'-tu-ar-e* (Lat., *estuarium*), is a term in Geology which was originally applied to any bay, creek, frith, or arm of the sea, in which the tide ebbed and flowed. It is now used, however, to denominate those parts of river channels which are contiguous to the sea or ocean, and in which the water is salt or brackish. For the term *estuary* to be rightly applied, the ebb and flow of the tide must be distinctly perceptible, and there must be little or no current.

ET CÆTERA, *et-set'-e-ra*, a Latin phrase, which has become thoroughly Anglicised. It is usually written *&c.*, and means *and so on*, and *so forth*. As an abbreviation, it is of great use in writing.

ETCHING. (See ENGRAVING and ELECTRO-ETCHING.)

ETCHING UPON GLASS. (See GLASS.)

ETHER, OR **ÆTHER**, the name given to the medium which is supposed to fill all space. Of the nature of this medium (the existence of which is proved by researches into the causes of the velocity of light) nothing is definitely known. Some natural philosophers have supposed that it is an attenuated extension of the atmosphere.

ETIQUETTE, *et-e-ke'* (Fr., a ticket), denotes the forms of manners and behaviour that prevail in polite society, established by usage and good breeding. The name is probably derived from the custom that prevailed, on state occasions, of delivering a ticket to each person, instructing him as to the part which he was to take in the ceremony. "Etiquette," says a writer on this subject, "is the barrier which society draws around itself as a protection against offences the law cannot touch: it is a shield against the intrusion of the impertinent, the improper, and the vulgar."

ETON COLLEGE, *e'-ton*, situated at Eton,

in the county of Buckingham, was founded by Henry VI. in 1440, and was dedicated to "the Blessed Mary of Etone, beside Wyndesore." Henry had been moved to the foundation of this college by the successes of William of Wykeham's noble foundations at Winchester and Oxford, established about fifty years before. Eton College and King's College, Cambridge, were modelled upon Wykeham's plan. The original foundation seems to have provided for 25 scholars and 25 poor men, whose duty it was to pray for the king, and the establishment consisted of a provost, 10 priests, 4 clerks, 6 choristers, and a master. A supplementary charter was granted in 1441, and in the same year the college buildings were commenced. In 1443, the number of almsmen was reduced to 13, that of the scholars being raised to 70, at which it now stands. The first provost of Eton was William of Waynflete, afterwards Bishop of Winchester, and founder of Magdalen College, Oxford. The college, which obtained several manors and advowsons from its founder, received several more from Edward IV. Since that period it has been successful and prosperous. The Public Schools Act of 1868 made considerable changes in the colleges. The foundation now consists of a provost and 10 fellows, who constitute the governing body; 2 chaplains, and 70 scholars. The members of the governing body are nominated by the universities of Oxford and Cambridge, among other electors. At present there are about 900 boys, a large proportion of whom are members of the aristocracy. Those boys who do not belong to the 70 scholars on the foundation are called "oppidans," and board in the houses of the assistant masters and dames. The collegers wear black gowns, but not college caps, as at Westminster, and their expenses are less than those of the "oppidans," who constitute the wealthy and aristocratic element of the school. They all receive the same tuition; and there are an upper and a lower school, with head and lower master, and a large staff of assistant masters and special tutors. The oppidans live out of the college, in boarding houses, known as "dames' houses." In the appearance of the college itself there was nothing striking, except the size and elegant character of the houses, until the recent erection of new schools and the splendid restorations of the hall and the chapel, which is on the model of that of King's College, Cambridge. Previously to 1848, there was kept up at Eton College the "Montem," held on Whit-Tuesday every third year. The boys all appeared in fancy costume, headed by the captain, and contributions, or "captain's salt," as they were called, were levied upon the spectators. Valuable scholarships at King's College, Cambridge, are every year open to the competition of the scholars; and other scholarships and prizes are open to scholars and oppidans alike. The study of modern languages has been encouraged by prizes founded by the late Prince Consort. Many eminent and illustrious men have been educated at Eton.

ETRUSCAN ART, *e-trus'-kan*.—There are but very few existing remains of the constructive works of the ancient Etruscans from which we are enabled to judge of the proficiency which this people had attained in the art of building. It is, however, certain that all works of a public nature was eminently characterized by solidity of construction, and were probably plain and devoid of elaborate sculptured decorations. The Tuscan

order of architecture, the plainest and most massive in style of the five classic orders, is named after this people; and although no example remains at the present time to show that it was positively originated and adopted by them, yet we may justly believe that the Romans derived it from a country which was the cradle of early Italian art, and that it forms a fair standard by which we may judge of their skill and progress in the art of building. Their temples are said by Vitruvius to have been small, and rectangular or circular in form. They were ornamented with figures in bronze and stone, and the walls of the interior were probably pannelled, and covered with paintings like those of the chambers that have been discovered in the sepulchral mounds that are so common in Tuscany. Their private houses were low, covering a large extent of ground, and surmounted with massive entablatures. Although there was but little architectural display in their buildings, the Etruscans had reached a high degree in the arts of painting and sculpture. The vases found in the Etruscan tombs are elegant in form, and the weapons and ornaments that have been discovered in the same localities are often of beautiful and elaborate construction. The principal archaeological remains of ancient Etruria are the tombs sculptured and hewn out of the rocks at Viterbo and Norchia; the amphitheatre at Sutri, also hewn out of the solid rock, and the numerous sepulchral tumuli. The roofs of many of the chambers found in these tumuli are arched; and as Rome derived her architects and knowledge of building from Etruria, we may consider the Etruscans as the originators of the arch and vaulted roofs in Europe. The Etruscans excelled in the arts, and their vases remain as models of design to this day. There is a conjecture that these beautiful vessels were not designed and manufactured by the ruling race in Etruria, but by their bondmen or serfs. By whatsoever race they were made, the ware of which the vases were formed was both glazed and plain. The shape of the vessel was generally an imitation of the Greek. That description of glazed vase which the Italian antiquaries call "the national" was of pale clay, and glazed with a black colour of an ashen or leaden hue, with subjects borrowed from the Etruscan mythology. These vases were baked at a low temperature, and modelled, as well as turned on the lathe. The black ware of the Etruscans was made of a clay mixed throughout with oxide of iron and manganese, and breaking with a fracture; polished externally. The body of the vase was ornamented with friezes or bas-reliefs. The handles and lips were also decorated with representations of men and animals, mostly in imitation of the metal-works of Greece and Asia. A favourite method of ornamentation was a frieze of small figures about an inch high, made from a cylindrical stamp revolving in the clay. The great resemblance which exists between the Etruscan vases and those of Corinth is a proof that Etruria derived from Greece her skill in modelling clay and the elegant drawing with which her vases were adorned. The manufacture was carried on between the years 660 B.C. and 395 B.C., the latter date being that of the fall of the Etruscan power. The pottery trade of the Etruscans was a lucrative one; it is probable that Rome derived all her ware from this source. It is supposed that the Etruscans were the inventors of the art of working in bronze; and large statues in that material have been preserved. Statues

and articles of ornament and use were extensively exported. Gems, intaglios, and mirrors were also products of Etruscan art.

ETYMOLOGY, *et-e-mol-o-je* (Gr., *etymos*, true, and *logos*, description), is that part of grammar which treats of words by themselves, of their classification, their formation, and the alteration of their forms by derivation and inflection. It teaches the deduction of one word from another, and the various modifications by which the sense of the same word is diversified. Recent philological researches have given to this department of grammar a much more extensive and important field of inquiry, by bringing together whole groups of languages, and showing the connection existing between them in word and form. (See GRAMMAR, PHILOLOGY.)

EUCHRE, *u'-ker*, a game at cards mostly played in America. The name is supposed to be a corruption of the French *écarte*. It is played with 32 cards, the twos, threes, fours, fives, and sixes, being rejected from the pack. Five cards are dealt to each player, and a trump is turned up from the undealt cards. In the trump suit the knave, or "right bower," is the highest trump, and the other knave of the same colour, the "left bower," is the next highest. In suits not trumps, the cards rank as at whist. Two-handed euchre is the most common form of the game, but there are also three-handed, or "cut-throat," and four-handed euchre.

EUGUBINE-TABLES, *u'-gu-bine*. Several bronze tablets discovered at Gubbio, in Italy (the ancient Iguvium or Eugubium). The characters on four of the tablets are Umbrian, on two Latin, and on one partly Latin and partly Umbrian; but the language is neither Etruscan nor Latin. The inscriptions have been deciphered; and contain directions for religious worship and sacrifice, and forms of prayer. The date seems to be three or four centuries before the Christian era.

EULOGY, *u'-lo-je* (Gr., *eu*, well, and *logos*, a discourse), denotes, in a general sense, an encomium or panegyric pronounced on any one on account of his merits or virtue. In the early Church, eulogy or *eulogia* was applied to the Eucharist; but it afterwards came to be restricted to the bread which was distributed among those who had not communicated, or who were absent.

EUNUCH, *u'-nuk* (Gr., *eune*, a bed, and *echein*, to have the care of), is, literally, one who has the care of a bed, a name given to emasculated persons in the East intrusted with the care of the women's apartments, or harems. The practice is of great antiquity, and even in the time of Herodotus it was carried on to a great extent among the Persians, who not merely intrusted the care of their wives and daughters to eunuchs, but considered them as more trustworthy than other men. The practice of making eunuchs does not seem to have prevailed to any great extent in Greece or Rome; but during the Eastern empire it was very common, and the chief of the eunuchs was one of the most important functionaries at court. Zeal for religion, as in the case of Origen, has caused many persons thus to mutilate themselves; and in the 3rd century there arose a sect of heretics, who not only thus treated those of their own persuasion, but all others on whom they could lay hands. Several of the Christian emperors of Rome forbade

the practice of making eunuchs; and Justinian imposed a law of retaliation on such as were guilty of such inhumanity. The council of Nice, at a later period, excluded from the pale of the Church all who, from whatever cause, made eunuchs of themselves. The practice prevailed in Italy, with the view of preserving the voice of singers for the musical service of the Church, and for the operas of Europe; and in the East, in the present day, the harems are chiefly guarded by eunuchs. In the Russian secret sect, known as Skopzi, it is now known that the practice prevailed.

EUPHEMISM, *u'-fe-mism* (Gr., *eu*, well, and *phemi*, I speak), is a figure in Rhetoric, by which one expression is substituted for another, so as to convey the meaning in less offensive or milder terms; as when we use the word departed for dead. Euphemisms were much employed by the ancients to avoid the use of words or phrases which were regarded as ominous.

EUPHONY, *u'-fo-ne* (Gr., *eu*, well, and *phone*, sound), denotes an agreeable sound, or combination of sounds—that pleasing quality in language which results from the happy combination of the enunciative elements.

EUPHUISM, *u'-fu-izm* (Gr., *euphuos*, eloquent, of vigorous growth), a word employed in English literature to designate a bombastic inflated mode of expression. This style of language enjoyed a short-lived popularity during the reign of Elizabeth. The term originated from the title of a book by John Lyly, "Euphuos; the Anatomy of Wit," whose affected language formed the model of the style. Shakespeare ridiculed the affectation in "Love's Labour Lost;" and Scott in the "Abbot."

EVIL EYE, a malignant influence superstitiously ascribed to certain persons, in virtue of which they are supposed to injure those on whom they cast an envious or hostile look. The belief dates from very ancient times, and was prevalent among the Greeks. The Mohammedans have a strong belief in the power of the evil eye; among the Celtic races of Scotland and Ireland it still prevails; and it is found among the North-American Indians. The expressive power of the human eye, influenced by strong passions of malignity, doubtless originated the superstition.

EVOLUTIONS, MILITARY AND NAVAL.—The movements of troops or vessels in order to change position. (See TACTICS.)

EXAMINATION, *egs-am-in-ai'-shun* (Lat., *examinatio*), is the usual mode of ascertaining the nature and extent of one's attainments. Examinations are of three kinds—educational, competitive, testing. The first of these is employed in teaching, the second is resorted to for ascertaining the relative merits of several individuals, and the last determines who come up to a fixed standard. In teaching, examination, when properly conducted, is one of the most valued means of training the faculties of the scholar; tending not only to fix his knowledge in his mind, but to give him a proper command of it, and a facility in using it, that he would not otherwise attain. It is necessary that these objects be kept distinctly in view by the teacher, otherwise he may be the means of unseating rather than establishing the scholar's knowledge, and may give confusion rather than clearness to his ideas. Competitive examinations are such as are made of a

number of individuals for the purpose of determining their relative attainments. They are used to determine the ability of a candidate to enter a university or to join a particular class, to be admitted to practise a certain profession, or to fill a particular office. Test examinations, if properly conducted, if the subjects of examination are judiciously selected, and if the standard is properly adjusted, are of great value and importance. Examinations may be conducted either orally or by writing, and each has its particular advantages; so that the best is a judicious combination of the two. In an oral examination, the examiner can most easily and clearly discover the depth of the scholar's attainments, and ascertain his readiness, and the command that he has over what he knows. Too much stress, however, ought not to be laid upon this kind of examination; for there are some persons whom it renders nervous and incapacitates from using their knowledge. By written examination, the defects of the oral may be compensated. Subjects that require deliberation, and which are intended to test the reasoning powers and judgment, are best treated in this way. In China, the system of competitive examination for public appointments has existed for many centuries.

Examinations for Official Appointments.—Competitive examinations now afford the means of entering into almost any department of the civil service of this country. (See CIVIL SERVICE.) Both in the Army and Navy, examinations have to be passed before commissions are given; admission to the Royal Military Academy at Woolwich is obtained by competition, and first appointments to the control and transport departments are similarly open (See ARMY.) These examinations, and others for the Indian service, are conducted by the Civil Service Commissioners. The subjects in which candidates must reach a certain standard vary with the nature of the duties to be performed; but proficiency in some subjects is required for all candidates. It may be stated broadly that first appointments to clerkships and similar situations in public offices are divided into two classes—one requiring high attainments, the official duties being of an important character; the other not demanding such extensive acquirements. Candidates in each class, however, must pass a preliminary test examination in handwriting, orthography, and arithmetic; English composition being added for the first class. The higher examination extends to the language, literature, and history of Greece, Rome, France, Germany, Italy, and England; English composition, especially *précis* writing, mathematics, natural science, moral science, jurisprudence, and political economy. It is not required that a candidate should take up all these subjects; but some are imperative, and marks are given for a competent knowledge of the subjects chosen. Those whose total of marks is the highest are the successful candidates, according to the number of appointments to be filled. The second class of candidates are examined in handwriting, orthography, arithmetic, copying manuscripts, indexing, summarizing official returns, book-keeping, English composition, and history and geography. For subordinate appointments, an examination of an elementary character must be passed. Examinations for the two grades of clerkships are held in London, Edinburgh, and Dublin, at stated periods, of which public notice is given. Examinations for subordinate appointments are held in all the chief towns of the United Kingdom. In examinations for Army appointments, mathematics, classics, and geometrical drawing, are important subjects. For the Indian appointments, a competent knowledge of some of the languages, the history and laws of India is requisite. Special and detailed information with respect to all examinations may be obtained at the office of the Civil Service Commission, Cannon Row, Westminster.

EXCLAMATION, *eks-kla-mai'-shun* (Lat., *exclamo*, I cry out), a term in Grammar susceptible of different significations, but which is usually

accepted as an interjection, signifying sudden emotion, expressive of wonder, alarm, or joy. It is usually uttered by a vehement and sudden extension or elevation of the voice.

EXEDRA, *eks-ed'-ra* (Gr., *exedra*), the name given in ancient architecture to recesses generally furnished with seats, which were placed in the halls and porticos of public and private buildings, and in the Roman baths and Greek palaestrae.

EXERCISE. (See GYMNASTICS.)

EXETER COLLEGE, OXFORD, *eks'-eter*, was originally founded in 1314, by Walter de Stapledon, bishop of Exeter, and some time lord high treasurer of England, and was then called Stapledon Hall. The bishop removed hither his scholars from Hart Hall, and made a foundation for a rector and twelve fellows. Thirteen fellowships were subsequently added by different donors; but in 1855, under powers granted by 17 and 18 Vic. c. 81, these fellowships were reduced from twenty-five to fifteen, and the restrictions with which they were burdened removed, so that they are now open without any preference with respect to birth. Candidates must have passed all the examinations required by the university for the degree of B.A., or have been admitted *ad eundem gradum* of the university, or have become in any way a member of convocation. One is a chaplain fellow, nominated by the Dean and Chapter of Exeter. There are 28 scholarships—15 of the value of £80 per annum; 10 of £60, limited in the first instance to persons born in the diocese of Exeter, or educated in some school in the diocese for at least three years; 3, value £80 or £70, limited in the first instance to persons born in any of the Channel islands, or educated at Victoria College, Jersey, or Elizabeth College, Guernsey. In the event, however, of no candidate offering, who, in the judgment of the electors is duly qualified to be a scholar of the College, the scholarships for the diocese of Exeter and those for the Channel Islands may be thrown open to all British subjects. The scholarships are tenable for five years. There are also 20 exhibitions attached to this college, only 10 are in its gift. They differ in value from £30 to £60 per annum.

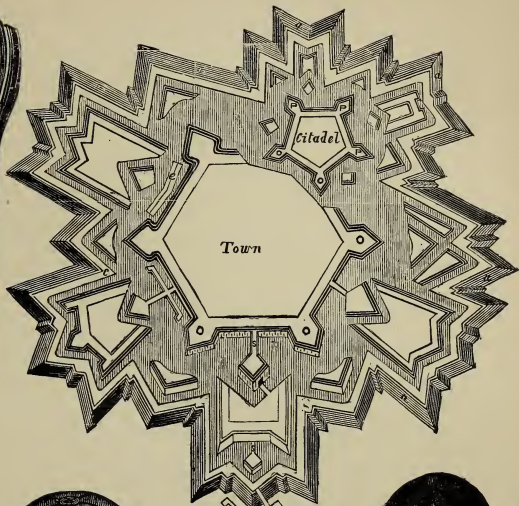
EXIT, *ej'-zit* (from the Latin *exire*, to go out), signifies the departure of an actor or player from the stage, when he has performed his part in any particular scene or act. It is also applied to the termination of one's career or state of existence. The word is usually placed in the margin of plays, as a guide to the actor or reader.

EXORDIUM, *eks-or'-de-um* (Lat., *exordior*), is the introduction or opening part of an oration. An exordium should be easy and natural, and drawn either from the subject itself or from the situation of the speaker. The ancients distinguished two kinds of introductions—the *principium* and *insinuatio*. The former is where the orator plainly and directly professes his aim in speaking. In the latter the orator must take a larger compass, and, presuming the disposition of the audience to be against him, he must gradually reconcile them to hearing him before he plainly discovers the point which he has in view. A remarkable instance of this latter method is afforded by the oration over the dead body of Cæsar, which Shakespeare puts into the mouth of Marc Antony.

EXOTIC, *eks-ot'-ik* (Gr., *exotikos*, foreign), a



ETRUSCAN VASE.



PLAN OF FORTIFIED TOWN.



ASSOCIATION FOOTBALL.



RUGBY FOOTBALL.



GUN, CAST IN 1790.



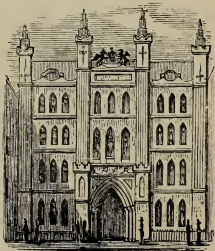
FLUTES—ANCIENT.



HALBERDS.



ETON COLLEGE.



GUILDHALL, LONDON

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term applied to the produce of foreign countries. In gardening, exotic plants are those which belong to a soil and climate entirely different to the place where they are raised, and are therefore mostly preserved in green-houses. Exotic plants from hot climates are very numerous, and require much attention; without great care, even if they do blossom, it is seldom that they produce fruit, or that their seeds ripen.

EXPERIMENT, *eks-per'-e-ment* (Lat., *experimentum*, an attempt), an operation for the purpose of discovering some unknown truth, principle, or effect, or to establish and prove it to others when discovered. Experiments are of great importance in physical science, and in chemistry they disclose the qualities of natural bodies.

EXPRESSION, *eks-presh'-un*.—In the Fine Arts, this term is applied to the representation of the various emotions of the mind, as shown in facial development. The great influence exercised by some painters of historical subjects and portraits on the imagination and emotion of the spectators, is largely due to their power of enduing the countenance with appropriate expression. In that respect the real genius of the great painter is apparent.

EXPRESSIONE, CON, *ex-pres-si-o'-nai*.—In Music, an Italian term, meaning with expression, impassioned, or pathetic.

EXPURGATORIUS, INDEX. (See INDEX EXPURGATORIUS.)

EXTEMPORANEOUS SPEAKING, *eks-tem-por-an'-e-ous* (Lat., *ex*, and *temporarius*, lasting but for a time, temporary), may be defined to be the power of clearly and forcibly expressing oneself upon any subject without previous preparation, at least as regards the words. The great requisite is to have clear and distinct ideas regarding the subject on which one is about to speak. In order to speak forcibly and clearly, one must begin by feeling vividly, and then clear ideas on the subject will naturally follow. It should not, however, obtain such possession of the mind as to prevent it from acting; for the mind of the speaker may become so completely absorbed by the contemplation of his subject, as to be unable to enter upon its development. This forms a stumbling-block to many in attempting to become good speakers; and it frequently occurs with men of genius. He, therefore, who would speak well must feel what he has to say, with

sufficient strength to express it with warmth and vivacity; but his feeling must not attain that vehemence which prevents the mind from acting, and paralyzes the expression, from its very fullness. A really good extemporaneous speaker thinks while he speaks, and the thoughts, almost unconsciously to himself, take shape in words. The imagination is one of the most necessary faculties to the extempore speaker: it ought to be endowed with great quickness in the formation and variation of its pictures, and also with great clearness, in order to produce, at first effort, a well-marked image, the lines and outlines defined with great exactness, and the colours bright, so that language has only to reproduce it unhesitatingly and unconfusedly. In many men, even of talent, the imagination is not sufficiently ready and clear; it works too slowly, owing either to a natural deficiency, or, more frequently, a want of practice. To many, again, the excitement of appearing in public is so great as to produce a certain incapacity of speaking, not unlike inability to walk from giddiness. The great means of getting over this is to feel perfectly sure of what you are going to say, and to have a clear conception of it. Earnest feeling is the basis of all really effective speaking; and the best speakers are those who, having the gift of fluency of speech are able to dismiss from their minds the idea that they are about to make a rhetorical display. Natural speech is invigorated and ornamented according to the speaker's powers and acquisitions; but if the attempt is made to use ornamental or sounding phrases in place of simple and appropriate language, the speech will be a display, but not a real appeal. The art of extemporaneous speaking can be cultivated by practice, and in this age of public meetings and similar gatherings is a valuable accomplishment. One important point, not generally considered in books of instruction, is for the speaker to be able to proportion the style and extent of his speech to the subject and circumstances under which it is delivered—to exercise good taste and tact, and to "know when to leave off"—a matter sometimes forgotten, especially in complimentary speeches. In debate, Parliamentary or otherwise, the speaker requires a good memory to retain the arguments of his opponents, and a ready power of arranging them in logical order for examination or reply.

EXTRA, *eks'-tra*, a Latin preposition, signifying over and above, in excess; as, extra work, extra pay, &c.

F.

F is the sixth letter and fourth consonant of the English alphabet, as it is also of the Latin. Its form is taken from the digamma of the ancient Greek alphabet, and it corresponds with the *vau* of the Hebrew. It is pronounced by bringing the upper teeth against the lower lip, and then breathing with a hissing sound. It is thus what is termed a labio-dental aspirate, and bears the same relation to the other labio-dental aspirate *v* that the unaspirated labials *p* and *b* bear to each other. *F* and *v* are frequently interchanged, and in German *v* has the sound of *f*,—as *von*, sounded *fon*; hence, in English words taken from the German, *f* takes the place of *v*,—as *vater*, father; *vier*, four. In Latin, *f* seems to

have had a sound somewhat corresponding to a strongly-aspirated *h*; for we find the latter frequently substituted for the former in the Sabine dialect of that language; and in Spanish, the Latin *f* is frequently changed into *h*,—as Latin *formosus*, beautiful; Spanish, *hermoso*. The *phi* in Greek was often in Latin represented by *f* instead of *ph*,—as *pheme*, *fama*; and this is frequently done in Italian and Spanish—as *filosofa*, philosophy. *F* in Latin also corresponded to *th* in Greek—as Gr. *ther*, Lat. *fera*, a wild beast. *F* in Latin and Greek often becomes *b* in English—as *frater*, brother; and *p* in Latin and Greek, *f* in English—as *pater*, father.

In Music, *F* is the fourth note of the natural dia-

tonic scale. It is also used as an abbreviation for *forte*, strong or loud, the superlative *fortissimo* being denoted by *f*.

FABIAN, *fai'-be-an*, an adjective expressive of delay—delaying or dilatory. Its real acceptation is *avoiding battle*, in imitation of Q. Fabius Maximus, a Roman general, who, while conducting operations against Hannibal in one of the Punic wars, only kept on harassing Hannibal by ambuscades and forays, without giving the Carthaginian general an opportunity of open battle. It thus is used to express delay or dilatory conduct.

FABLE, *fai'-bl* (Lat., *fabula*), denotes, in its most general sense, any fictitious narrative; but more particularly it is a short fictitious story, intended to convey practical rules of worldly prudence or wisdom, by imaginary representations drawn from the physical or external world. It differs from a parable, with which it has many features in common, in being carried beyond the bounds of the probable, and even of the possible. In the *Æsopian* fable, the imagined actors, or the chief of them, instead of being men, are the lower animals, and sometimes even plants, or other things really inanimate. The fable consists, properly, of two parts—the symbolical representation and the application, or the instruction intended to be deduced from it, which latter is called the *moral* of the tale; but it ought also to be apparent in the fable itself, in order to render it complete. On account of its aim, it lies upon the borders of poetry and prose. The oldest fables are believed to belong to the East; and of these the most celebrated are the Indian fables of Pilpay, or Bilpai; and the more meagre Arabic collection attributed to Lokman, who is said to have lived in the time of king David. Among the Greeks, the fables of *Æsop* are well known; but not a few of those that were current in Greece under his name are identical with those of the East. In Latin, Phædrus has left about ninety fables of considerable merit in imitation of *Æsop*; but the well-known fable of "the town mouse and country mouse," related by Horace, is the best in that language. During the Middle Ages, the fable does not seem to have been entirely neglected; and an edition of those current in Germany in the time of the Minnesingers has been published by Bodner. The oldest known writer of fables in Germany is Stricker, who flourished about the middle of the 13th century; but the anonymous "Reynard the Fox," is of anterior date; and among the most distinguished of the later writings of that country are Gellert, Gleim, and Lessing. In England, the most distinguished name in this walk is John Gay; and in France, pre-eminent among all the moderns for his delicate sarcasm and lively wit, is La Fontaine.

FABLIAUX, *fab'-leo* (Lat., *fabellæ*, to speak or to tell).—In the old French literature, short metrical narratives, intended for recitation, and usually founded on some current or familiar event, which is treated wittily and epigrammatically. The oldest known fabliaux were brought from the East by the returned Crusaders.

FAÇADE, *fas-sadé* (Fr.), face or front of any building of importance. It may be applied to any side of a large quadrangular building embellished with sufficiently striking architectural features, but it is usually confined to the principal front, in which the chief entrance is most

frequently, if not always, situated. An elevation of the side of a building is termed a lateral façade.

FACE. (See **PHYSIOGNOMY**.)

FACIA, *fai'-she-a* (Lat., *facies*, a face), a name often given to flat bands or fillets introduced into architectural embellishments, but more frequently applied to the bands of an architrave, which are so placed that the one above projects beyond the surface of that which is immediately below it. In the architrave of the Composite order of architecture two *facias* are generally used, while in the Corinthian, and sometimes in the Ionic order, three are introduced. (See **ENTABLATURE**.)

FAC-SIMILE, *fak-sim'-e-le* (Lat., from *facio*, I make, and *similis*, like).—An exact imitation of an original in all its traits and peculiarities, a copy as accurate as possible. It is chiefly used in relation to copies of old manuscripts, or of the handwriting of famous men, or of interesting documents, which are made by engraving, lithography, or photography.

FACTION, *fak'-shun* (Lat., *factio*), is a term applied in a bad sense to any party in a state that offers uncompromising opposition to the measures of the government, or that endeavours to excite public discontent upon unreasonable grounds. In Ireland, local combinations of particular families, between whom long-standing quarrels exist are known as factions.

FACULTY, *fak'-al-te* (Latin *facultas*, in a University, a faculty is one of the particular departments of teaching. In most universities there are four faculties—viz., arts, law, medicine, and theology. (See **UNIVERSITIES**.) Members of the medical profession are commonly referred to as "the faculty."

FAGGING, *fag'-ging* (Ang.-Sax.), is a term applied to a system of servitude which was at one time general in the higher schools of this country. It consisted in the junior boys, or those of the lower school, as it is called, being compelled to act as servants or "fags" to the older or more advanced pupils. The fag was under entire subjection to his master, having to attend to his fire, prepare his meals, brush his clothes, and perform other menial duties. One excuse for maintaining the system was that it trained the younger boys to habits of discipline and obedience; but the fact is overlooked that the elder boys were trained by it to be arrogant, domineering, and often brutal. Lads of low nature, having experienced tyranny when they were small and helpless, "bettered their instruction" when they were older, and revenged themselves on those weaker than themselves. Another excuse for the practice was that the little "fag" had a protector in his master against the bullying of other big boys—not invariably a very great advantage.

"**FAËRIE QUEEN, THE**," *fai'-e*.—The most important poem of Edmund Spenser's, one of the most distinguished ornaments of the great Elizabethan age of poetry. The author desired to divide the poem into twelve books, the "general end being to fashion a gentleman or noble person in virtuous and gentle discipline; in which I have followed all the antique poets historically. . . . By example of which excellent poets, I labour to pourtrait in Arthure, before he was king, the image of a brave knight perfected in the twelve private moral virtues." If these

twelve books were well accepted, Spenser said he might be encouraged to show him exhibiting the politic virtues as king. The conception, however, was not fully carried out; for only six books and a fragment of the seventh were completed. We borrow from Professor Wilson, in an article in *Blackwood's Magazine*, an epitome of the plan of the poem:—

"The poet supposes that the Faërie Queen, according to an established annual custom, held a magnificent feast, which continued twelve days, on each of which respectively twelve several complaints were presented before her. To redress the injuries which were the occasion of these several complaints, she despatches, with proper commissions, twelve different knights, each of whom, in the particular adventure allotted to him, proves an example of some particular virtue, as of holiness, temperance, justice, chastity, and has one complete book assigned to him, of which he is the hero. But, besides these twelve knights, severally exemplifying twelve moral virtues, the poet has constituted one principal knight as general hero—Prince Arthur—who represents, as we have seen, magnificence, the perfection of all the rest. He, moreover, assists in every book, and at the end of his actions is to discover and win Gloriana, or Glory."

In accordance with the fashion of the time, there is a hint that the court of the Faërie Queen may refer to the court of Queen Elizabeth, who herself may be taken to be symbolized by Gloriana. The poem takes place among the very finest achievements of English literature; and some of the greatest of subsequent poets have acknowledged the delight it has afforded them. His imagery is exquisite, his perception of moral and physical beauty most delicate, his diction melodious to a degree equalled by few; and his command of the noble stanza he adopted almost matchless. Walter Scott, referring to the favourite literature of his boyhood, says—"Spenser I could have read for ever;" and, later in life, he affirmed, "No author, perhaps, ever possessed and combined in so brilliant a degree the requisite qualities of a poet." Campbell speaks of Spenser as "The Rubens of English poetry;" and Hallam, in his "Literary History of Europe," writes, "We must not fear to assert, with the best judges of this and former ages, that Spenser is still the third name in the poetical literature of our country, and that he has not been surpassed, except by Dante, in any other." The first edition of the three first books of "The Faërie Queen" was published in 1590; the second part in 1596.

FAINEANTS ROIS, *faï-nai-an(g) rō-ai* (Fr., "do-nothing kings"), a satirical name given to the later kings of France of the Merovingian dynasty, during whose reigns the real business of government was carried on by "mayors of the palace."

FAIRS, PLEASURE, originating in the desire of the crowds collected at fairs to enjoy amusements, are now nearly all abolished, on account of the drunkenness and licentiousness which prevailed. Theatrical booths, tents for dancing, wild beast and other shows, giants, dwarfs, spotted boys, fat women, fire-eaters, jugglers, pugilists, gingerbread, booths for the sale of intoxicating liquors, and even worse adjuncts, were the leading features of these fairs, which were productive of a great amount of excess and immorality; and few now remain. The most noted fairs in the neighbourhood of London were Bartholomew, Greenwich, Camberwell, Fairlop, and Charlton Fairs. Many were abolished by the Fairs Act, passed in 1871. In older times, the village fairs were less objection-

able gatherings; but when the ruffianism and profligacy of towns were added to the beer-drinking and fighting propensities of the rural pleasure-makers, fairs became public nuisances. "Fairings" were presents of gingerbread, ornaments, trinkets, or ribbons bought at the fair to please children and sweethearts. A well-known Scotch ballad begins—

"Oh dear, what can the matter be?

Johnnie so long at the fair?

He promised to buy me a bunch of blue ribbons

To tie up my bonnie brown hair."

In Ireland, the gathering at fairs not unfrequently led to faction fights. Donnybrook Fair, formerly held in August, about three miles from Dublin, attained a peculiar celebrity. It lasted a week, and, on the Sunday, after which the real business of the fair began, all classes of Dublin society used to visit the spot, the road being lined with vehicles of all kinds, from handsome private carriages to the roughest cars. The fair was ostensibly held for the sale of horses, but that purpose became quite subordinate to amusements, of which whisky drinking and fighting formed the chief part. The national "shillalah" was never wielded with greater activity and zest than at Donnybrook; and there originated the story of the lively Irishman who dragged his coat behind him, hoping that somebody would tread on it, and so give him an excuse for breaking his head.

Statute, or Hiring, Fairs.—Gatherings held in some rural districts of England and Scotland, for the hiring of labourers and domestic servants who attend, and make engagements with farmers and other employers. In some places they are known as "mops," and are generally connected with pleasure fairs. The promiscuous mingling of young men and women and the facilities for obtaining drink have made these statute fairs very objectionable.

Fancy Fairs.—Temporary bazaars for the sale of ornamental articles and toys, generally for the purpose of raising money for a charitable object, or in aid of schools, or church extensions. The stalls are presided over by ladies, frequently of high rank, wearing the most attractive costumes, who exert all the arts of fascination to induce the visitors to purchase the articles at the highest prices. Large sums are often realised at these fairs, which are very fashionable.

FAIRIES, OR ELVES, *fair'-ees, elvz* (Ger., *elfe*; Sw., *elf*; Dan., *ellefolk*; Old Norse, *atf*), in popular superstition supernatural beings, of human shape, of both sexes, and generally of very diminutive size. The name fairy (spelled by Spenser, "Faërie") is derived from the Latin *fatum*, fate; and hence the Italian name of this class of beings is *fata*. Elf is derived from the Old Norse *atp*, or *atf*, which signifies both a mountain and a demon of the mountains. The Anglo-Saxons had their *dun-ælfenne*, or fairies of the mountains; *wudd-ælfenne*, or fairies of the woods; *water-ælfenne*, or fairies of the fountains. They are thus classed by Shakespeare:—

"Ye elves of hills, brooks, standing lakes, and groves,
And ye that on the sands with printless foot
Do chase the ebbing Neptune, and do flee him
When he comes back."—*Tempest*, act v. sc. 1.

The general belief is that the native land of fairy mythology is Arabia, and that our knowledge of these beings was brought from that country by the Crusaders; but there can be no doubt that their origin is much more ancient. They are generally believed to be a kind of intermediate beings, partaking both of the nature of men and spirits, having material bodies, and yet possessed of the power of making themselves invisible, and of

passing through any sort of inclosure. They are remarkably small in stature, with fair complexions, and generally clothed in green. Their haunts were believed to be groves, verdant meadows, and the slopes of hills, and their great diversion dancing hand-in-hand in a circle, as alluded to in *Midsummer Night's Dream*. The traces of their tiny feet are supposed to remain visible in the grass long afterwards, and are called Fairy Rings or Circles (which see). They were regarded as of a doubtful character, being sometimes benevolent and sometimes mischievous. The diseases of cattle were frequently attributed to their mischievous operation; and cattle that died suddenly, without any apparent cause, were commonly said to be elf-shot. They were said to be very fond of human children, and were in the habit of carrying away such as they could lay hold of, and leave vixens of their own in their room. (See CHANGELING.) T. Crofton Croker, in his "Fairy Legends and traditions of the South of Ireland," describes them as beings "a few inches high, airy, and almost transparent in body; so delicate in their form that a dewdrop, when they chance to dance on it, trembles, indeed, but never breaks. Both sexes are of extraordinary beauty, and mortal beings cannot be compared with them." They live in large societies, and are governed by a queen: and the peasantry never speak of them but with caution and respect, as the good people and friends, believing them to be present, and to hear what is said. They have their dwellings in clefts of rocks, caves, and ancient tumuli, and every part of them is decorated in the most splendid and gorgeous manner. The popular belief in fairies may now be said to have died out in this country; but to it we are indebted for a class of literature which, at least to the young, has its ceaseless charms. The true fairy tales first became popular in the latter part of the 17th century, and the Italians appear to have been the first to take the lead. After a time they became very popular in France; and at present they are more extensive and popular in Germany than in any other country. (See BROWNIE, KELPIE, SYLPH.)

FAIRY RING, OR CIRCLE, is a ring occasionally observed in pastures, and which was usually attributed by the peasantry to the dancing of the fairies. Shakespeare refers to them as "the green sour ringlets whereof the ewe bites not;" and Tennyson, in "Guinevere," says,

"Still at evenings on before his horse,
The flickering fairy circle wheeled and broke."

They are seldom of a perfect form, but are usually more or less irregular, sometimes forming a series of arcs of circles. They were ascribed by scientific men to various causes; but they are now known to be occasioned by the growth of certain kinds of fungi, which, proceeding outwards from a centre, render the soil for a time unfitted for the nourishment of grass.

FALCHION, *fawl'-chun*. (See SWORD.)

FALCONET, *fal'-kon-et*.—The name of a very small cannon in use in the 15th and 16th centuries.

FALCONRY. (See HAWKING.)

FALERNIAN WINE, *fal'-er'-ne-an*, a very fine wine drunk by the ancient Romans, and especially referred to as of excellent quality by Horace. The vines from which it was made were culti-

vated in *Falernus Ager*, a district in the northern part of Campania.

FALSETTO, *fa-sel'-to*, an Italian word used in Music to signify a feigned or artificial voice, produced by diminishing the aperture of the throat. The Italians call the falsetto, *voce di testa*, or voice from the head, in contradistinction to *voce di petto*, the natural or chest voice. The art of a singer is displayed in so blending the voices, that no break is perceptible.

FAN, *fan* (Sax., *fann*), an instrument which is used by ladies to agitate the air, in order to create a sensation of coolness around them. It is manufactured of feathers, of paper, thin skin, or ivory, joined together, and is generally carved and painted, in order to ensure its embellishment. The fan is mentioned in the Grecian classics (Euripides); indeed, it was known in an era far prior, as there are paintings in the relics of Thebes to prove that the Egyptians were familiar with its use. The fan was first brought into European notoriety by Catherine de Medicis, who introduced it into France, where it was so constructed that it could be used and folded in a manner similar to the fan in use at the present day. Great sums were spent on the ornamentation of the fans first in vogue, and many were painted on by the cunning fingers of Watteau. The Chinese have greatly excelled in the art of fan-making, and in the species of lacquered fans their superiority is fully admitted. The Chinese themselves use a cheaper sort, made of bamboo and paper, polished, which cost about tenpence each. In the "Spectator," Addison and Steele made the fan a frequent subject for good-humoured rallery. In No. 102, Addison published a letter from a pretended correspondent, who begins: "Women are armed with fans as men with swords, and sometimes do more execution with them. To the end, therefore, that ladies may be entire mistresses of the weapon, I have erected an academy for the training up of young women in the exercise of the fan, according to the most fashionable airs and motions that are now practised at court. The ladies who carry fans under me are drawn up twice a day in my great hall, where they are instructed in the use of their arms, and exercised by the following words of command, 'Handle your fans, Unfurl your fans, Discharge your fans, Ground your fans, Recover your fans, Flutter your fans.' By the right observation of these few plain words of command, a woman of a tolerable genius, who will apply herself diligently for the space of but one half-year, shall be able to give her fan all the graces that can possibly enter into that little modish machine." At fashionable dancing assemblies in the last century, gentlemen frequently drew fans for partners, the fans of the ladies being placed in a hat, and each gentleman drew one, the lady to whom it belonged being his partner. A species of large fan is used in India for cooling the air of rooms and keeping down the temperature. (See PUMKAH.)

Winnowing Fans. (See FANNERS.)

FANARIOTS, *fan-a'-ri-ots*, a general name for the Greeks inhabiting the Fanar quarter in Constantinople, so named from the beacon (*phanarion*) situated in it. They are probably descendants of Byzantine families who escaped the fury of the barbarians.

FANDANGO, *fan-dang'-go* (Sp.), the name of an old popular Spanish dance, which proceeds

gradually from a slow and uniform to the most lively, but never violent, motion. It is danced by two persons only, the dancers marking the time with carbanets, and represents the various gradations of the passion of love to an extent bordering on the licentious. Attempts have been made by the clergy to suppress this dance, but without success.

FANFARE, *fan(g)-far'* (Fr.), a short lively military call, executed on brass instruments. It was brought by the Arabs into Spain.

Fanfaron, a derived word, is applied to a bragger who "blows his own trumpet," and his loud empty talk and boastings are styled *fanfaronnade*.

FANG (Ang.-Sax., *fengan*, to fasten upon), the teeth of a dog or serpent, by which it catches and holds its prey, are known as fangs. In Lowland Scotch, *fang* is something stolen, and a thief taken with the stolen goods in his possession is said to be "taken with the fang." Shakespeare uses the word in the sense of to seize upon or to catch.

FANTASIA, *fan-tai'-zhe-a* (Ital.), in Music, a term used to denote an extempore performance, in which the musician gives full scope to his imagination; and which, although subjected to the fundamental laws of melody, modulation, and harmony, is not elaborated by any strict rules or forms of construction. This term also signifies a written composition of a similar character.

FANTOCCINI. (See PUPPETS.)

FANTRACERY VAULTING, a beautiful kind of vaulting originated in England in connection with the late Gothic style of architecture. The ribs or veins of the vaulted roof spring from the cope of the shaft and radiate with the same curvature, and at equal intervals, round the surface of a curved cone or polygon, till they reach the ribs which divide the roof horizontally. The spaces between the ribs are filled with tracery, from which the name fan tracery is taken. Very fine examples may be seen in the chapel of King's College, Cambridge; Henry the Seventh's Chapel at Westminster; St. George's Chapel, Windsor; and in the Cloister of Canterbury Cathedral.

FARCE, *farse* (Lat., *farsum*, stuffed, denoting a mixture of different things), a dramatic piece of a low comic character, usually played as an afterpiece. Its sole end being to excite mirth, it excludes nothing, however wild or extravagant, which may contribute to that object. It differs from comedy in this, that while the latter is based upon nature and truth, the former does not scruple to have recourse to any not absolutely impossible extravagance or absurdity that may serve its purpose. Farces are said to have been first introduced by the Society of Clerics de Bazoche, in Paris, about 1400. Molière greatly improved and elevated this class of dramatic literature.

FARDEL, *far'-del* (Ital., *fiardello*), a bundle or parcel; an incumbrance. Shakespeare uses the word in the sense of a burden, when he makes Hamlet ask, "Who would fardels bear?"

FARNESE WORKS OF ART, *far-nai'-sai*.—The name of the great Italian family has been given especially to two famous sculptures formerly the property of members of the family. The *Farnese Bull*, a colossal group, was discovered in 1546, and having been restored, was placed in the Farnese Palace at Rome. It is

probably the work of Apollonius and Tauriscus, of Asia Minor, who lived about 300 B.C. The group represents Dirce bound to the horns of a bull by Zethus and Amphon, for ill-usage of her mother. This noble piece of sculpture was taken to Rome, where it was placed in the Baths of Caracalla; but was afterwards lost to view for more than a thousand years. The *Farnese Hercules* is a copy by Glykon from the original by Lysippus, a Greek sculptor, who lived about the end of the third century before the Christian era. Hercules is represented, exhausted by toil, leaning on his club.

FARO, *fa'-ro*, a game of cards, formerly much in vogue in England: at present, it is seldom if ever played. In the principles of the game, it is somewhat similar to *rouge et noir*. The players have to bet on their cards winning against those dealt for the bank, and can double their stakes every time they win. They are not allowed to increase their stakes, however, to more than sixteen times what they were originally.

FARTHING EPIC.—Mr. R. H. Horne published, in 1843, an epic poem, "Orion," at the price of one farthing, in order to test the public demand for epic poetry.

FARTHINGALE, OR FARDINGALE, *far'-thing-gaile*, a petticoat expanded by hoops of whalebone, &c. They were first introduced into England during the reign of Elizabeth; and after coming into and going out of fashion several times, they re-appeared about 1856. (See CRINOLINE.) An old form of the name is "Verdingale," derived in a round-about fashion from the French *vertu-garde*, "guard of modesty." Some writers have intimated that "concealer of shame" would be a more appropriate form of words.

FASCIA. (See FACIA.)

FASCINES, *fas-scens'* (Lat., *fascies*), long fagots, or bundles of brushwood, used for various military purposes; such as forming the revetments of parapets in field-works, and making the roof of a blindage or magazine, which may be rendered bomb-proof by covering the fascines with a sufficient depth of earth. They are also used for making roads over wet boggy ground.

FAUSSE-BRAYE, *fose'-brai* (Fr., *fausse-braye*; Ital., *fossa-brea*), the name given to a low rampart and parapet, which was sometimes raised in the ditch surrounding the *enceinte* of defensive works of the 15th, 16th, and 17th centuries, round the base of the main rampart of the fortress, and extending about 20 feet beyond it.

"FAUST" LEGEND AND LITERATURE, *foust*.—The old German legend of "The Devil and Dr. Faustus" has given rise to a considerable amount of literature, including some of the most splendid efforts of poetic genius. The legends, poems, and dramas originated in the half mythical story of the life of one Johann Faust, born in the latter part of the 15th century at Knittlingen, in Suabia, or, as some writers think, at Roda, near Weimar. His parents are supposed to have belonged to the peasant class, but he had a wealthy uncle, who enabled him to study at Wittenberg, and afterwards established himself as a doctor of medicine at Ingolstadt. On the death of this uncle, Faustus became possessed of considerable wealth, which he spent

recklessly. Then, the popular legends go on to say, he studied the magical arts at Cracow and other places, and, in order to obtain unlimited sensual enjoyments, entered into a compact with the devil that at the end of twenty-four years he should be his, "body and soul." He wandered about Europe, in the character of a travelling scholar, being conveyed from place to place on a magic mantle, performing strange feats and acquiring great celebrity, and was attended by a familiar spirit, or demon, named Mephistopheles. When the allotted time had expired, the devil seized him and carried him away, and tradition avers that this terrible event occurred in 1560, at a village named Rilmlich, near Wittenberg; but another version of the story assigns Breda, a village of Saxony, as the place where the terrible scene occurred, and a room, with blood stains on the walls, is yet pointed out as the place where the evil one demanded the fulfilment of his contract, and mangled the body of the wretched Faust. There is probably in this, as in many other stories of magic and contracts with the devil, a slight basis of fact. Faust was probably a man of great intellectual power, animated by an eager desire to gain knowledge, who had obtained an insight into some of the mysterious powers of nature which modern science has utilized, and was so far in advance of the learning and science of his time, that his contemporaries could only account for his attainments, and explain some of his experiments by the supposition that he was assisted by supernatural power. As it was an article of popular belief that the devil always required a *quid pro quo*, the story of a contract and the surrender of Faust's soul and body followed as a matter of course. Melancthon, the great Reformer, a man of scrupulous veracity, stated that he had seen and conversed with Faust (better known by the Latinized form of the name, Faustus); and Luther, in his "Table Talk," refers to him as a real person, but so far adopted the prevailing opinion, added that he was "a man lost beyond all hope." Some writers have endeavoured to identify him with Johann Fust, one of the earliest practisers of the art of printing; but there can be no doubt they were different persons. In course of time, Faust became identified in the popular mind with nearly all other so-called magicians and necromancers, and was credited not only with many of the wonders performed by such presumed possessors of occult powers as Albertus Magnus, Simon Magus, and Paracelsus, but with having performed innumerable feats of vulgar juggling. The clergy preached about the wicked doctor and held him up as a frightful warning of the danger of yielding to temptation and seeking to obtain an acquaintance with forbidden things. Legend soon developed into literature. As early as 1588, a little book relating the strange career of the doctor appeared at Frankfort, and was soon translated into other European languages. A larger book soon followed; and many trashy little books, professing to describe Faust's method of performing his wonders, and containing spells supposed to have been used by him, were eagerly bought by the wonder-loving German people. The earlier books mentioned above appear to have reached England very soon after they were published, and to have powerfully appealed to the imagination of that great dramatic genius, Christopher Marlowe, who, about 1600, produced a splendid drama, "The Tragical History of the Life and Death of Dr. John Faustus," abounding in poetical diction

and the exhibition of magnificent qualities of imagination and fancy. Many of the lines and images have taken place among the gems of English poetry. Faust and Mephistopheles travel about the world, the latter raising spirits and performing marvellous magical feats. One of the spirits raised is that of Helen of Troy, "fairer than the evening air, clad in the beauty of a thousand stars." The concluding scene of this wonderfully fine poetic drama is appalling in its tragic power. On the fatal night when the period of the contract has expired, two scholars have supped with Faust, and he has told them that Lucifer and Mephistopheles are coming—"I gave them my soul for my cunning." The action of the scene is summarized by Mr. Filmore:—"They depart to offer up their prayers for him, and leave him to wrestle with his agony alone. The good and bad angels visit him, one reminding him of what he has lost, and the other showing him what is to come. The description of the infernal tortures, given by the bad angel, reads like a passage from Dante. As they vanish, the clock strikes eleven; and Faust's concluding soliloquy is only interrupted by the striking of the bell, which speaks the lapse of the short remainder of the time with double distinctness, while he prays for an hour, a moment's respite, and calls upon the mountains to cover him. As the clock strikes twelve, he is torn in pieces." The story of Faust naturally attracted the attention of German writers, some of whom exhibited sympathy with the vulgar belief in the magical powers of Faust, while others, of greater intellectual grasp, recognised in the myth another instance of the vain struggle of the human intellect with the mysterious problems presented by the unknown and the hereafter. It has been estimated that about a hundred and twenty distinct works, many, it is admitted, of very small literary value, have been founded on the Faustus legend. Among the German authors are Lessing, Müller, Klinger, Bechstein, J. D. Hoffmann, Grabbe, Nicolas Lenau, Lenz, Schreiber, Von Soden, Holtei, Rosenkranz, Pfizer, Harvo Haring, Berkowitz, Schone, Chamisso, and Voigt. The greatest of all the works founded on the story is Goethe's *Faust*, the first part of which appeared under the title of "Dr. Faust, a Tragedy," at Leipsic in 1790, and afterwards in a remodelled form at Tübingen, in 1808. The second part was not published till 1833, after the author's death. It is the first part which has attained universal celebrity. It is complete in itself, and the second part was an afterthought, and comparatively weak. "Faust" ranks with the highest productions of the human intellect and imagination. Philosophy, dramatic force, touching pathos, wildest humour, personal and cynical satire, audacious speculation, poetic fervour, and daring irreverence are strangely and wonderfully mingled. Margaret (in the original, Gretchen, a familiar diminutive), innocent, simple, loving, the victim of the faithlessness of Faust and the machinations of Mephistopheles, is exquisitely depicted. The most prominent character of the tragedy is the demon Mephistopheles, the very embodiment of a mocking fiend, with unbounded intellectual power, but no perception of good. He is witty, humorous, adroit, callously cruel, delighting in buffoonery, and "as a being not subject to restraint, physical, human, or divine, totally devoid of scruples." Hallam notices the different modes in which the two writers of genius have embodied the evil spirit. "There is an

awful melancholy about Marlowe's Mephistopheles, perhaps more impressive than the malignant mirth of the fiend in the renowned work of Goethe." The scene of the "Walpurgis Night," or the visit to the witches' assembly, and the "intermezzo," referring to the same subject, contains personal and local allusions which have puzzled critics, and probably are not worth inquiring about. The "Prologue in Heaven," which introduces the tragedy, is a most daring adaptation of the opening chapters of the book of Job. The second part of "Faust" has less human and dramatic interest. It deals with the travels and many adventures of Faust and Mephistopheles, and contains many passages of great lyric and poetic beauty. The most complete information on the subject of Faust literature is contained in "Literature of the Faust Myth" (*Literatur der Faustsage*), published at Leipzig in 1857.

FEBRUARY, *fel'-ru-a-re* (Lat., *Februarius*, from *februo*, I purify), is the name of the second month of our year, and contains ordinarily twenty-eight days, except in leap-year, when it has twenty-nine, an intercalary day being added. It is so called because a festival called the *Februalia* was held in that month. It was introduced into the calendar by Numa, who gave it the twelfth place; but the *decemviri* subsequently transferred it to where it now stands.

FEELING, *feel'-ing* (Sax., *felan*, to feel), is primarily employed to denote the perceptions which we have of external objects by the sense of touch; but it has also come to be applied to our inward sensations. Thus a man may have a feeling of pleasure from heat, or from contemplating a beautiful landscape. In this way we have intellectual feelings, moral feelings, sensual feelings, feelings of taste, &c.

FEINT.—In military matters a sham attack or assault made to divert the attention of the enemy from a real design on his position. (See also **FENCING**.)

FELLOWSHIP, *fel'-lo-ship* (Sax., *felow*, fellow), in a college, is an endowment entitling the holder to a share of its revenues, and constituting him a part of the corporation. Fellowships are either original, having been constituted by the founder of the college, or endowed by subsequent benefactors. Formerly, most of the fellowships were restricted to the inhabitants of certain dioceses, or districts, or persons; but most of these restrictions have been removed by modern legislation. Some fellowships may be held by laymen, but, in general, they can only be held by persons in holy orders, or who are ordained within a specified time. (See **UNIVERSITIES**, and various headings.)

FEMALE MEDICAL PRACTITIONERS.—The first session of the Female Medical School, London, was held in 1865. There are now nearly 400 female physicians in active practice in 26 of the United States, the majority of them being settled in New York, Massachusetts, and Pennsylvania. These figures show a very rapid increase in the number of women practising medicine in the United States. A few years ago a lady doctor was more or less a *rara avis*; now there is scarcely a village in any one of the Eastern States which cannot boast of at least one such practitioner. In Russia 12 female doctors are now officially engaged in teaching

medicine to women, 30 are in the service of the *Zemstvos*, and 40 others serve the hospitals. Twenty-five female doctors who took part in the military operations of 1877 have been decorated, by order of the Emperor, with the order of St. Stanislas of the Third Class. The number of female students is steadily increasing.

FEMININE, *fem'-nin* (Lat., *femina*, a woman), is the opposite of masculine, and means pertaining to a woman or women.

In Grammar, words are said to be feminine when they denote females, or have the terminations proper to express females in any given language.

FENCE MONTHS.—In Forestry, before Midsummer, a month in which it is unlawful to hunt in the forests, because in that month the female deer fawn.

FENCIBLES, *fen'-si'-bls*. At one time regiments raised for local defence at a special crisis—especially local militia and volunteers—were denominated fencibles.

FENCING, *fen'-sing* (from the same root as *defence* and *fence*), the art of using skilfully, in attack or self defence, a sword, rapier, or bayonet; but usually taken to mean address in the use of the second of these weapons. In actual personal combat the rapier is, more correctly was, used, for its employment has gone out with the practice of duelling. In the school of fence the foil is wielded. The foil is a circular or quadrangular rod or blade of pliable highly-tempered steel, blunted, and covered with leather at the point, so as to prevent accidents in its practice. In length it varies between thirty-one and thirty-eight inches, and, for the purposes of the art, it is divided into two parts—the *forte*, which occupies the half of the blade ending with the hilt, and the *faible*, which occupies the other half terminating with the button. During the pastime, the fencers wear a strong wire mask upon their faces as a defence against accidental thrusts, &c. When metal casing became somewhat, if not altogether, disused, fencing came into vogue; and, as all gentlemen wore swords, and quarrels were matters easily got up, it was absolutely necessary that all should have some knowledge of the "fence." In France a school was established for its prosecution, and new improvements were found out every day in the science. The early Italian and Spanish schools taught the management of the sword, aided, generally, by the dagger or the mantlet; the shifting of the position of the fencer was also necessary to avoid attack. But since the habit of wearing the dagger and mantlet have been abandoned, and the velocity of attack and defence become so great, instruction in fencing has been strictly limited to the foil, and shifting position would be fatal to one engaged. The Italian foil is some thirty-eight or forty inches long, while the French is shorter, being only thirty-four inches, generally, in length. In fencing there are three openings or entrances—the *inside*, comprising the whole breast from shoulder to shoulder; the *outside*, which can be attacked by all the thrusts made above the wrist on the outside of the sword; and, finally, the *low ports*, which embrace the armpits to the hips. The following are the principal attacks and defences:—First, the *carte* is a guard which is shown by turning the wrist with the nails upwards, and the hand in a line with the lower part of your breast, the arm somewhat bent, the

elbow inclining a little to the outside, and the point of your foil directed towards the upper part of your adversary's breast at an angle of about 15°. The *thrust*, *lunge*, or *longe*, is an attack. When at the guard in *carte* (as just shown), straighten the arm, raising your wrist above your head, keeping the point of your foil still pointing to your adversary's breast, and then thrust out first the wrist and then the whole body by a "lunge" of the right foot some two feet from the guard; your left foot remaining firm all the time. The *parade* is formed by moving your sword over from your guard, when received, obliquely downward to the right about six inches, and opposing the inside of your foil to your adversary's blade. The *seconde* is shown by holding your nails and wrist downwards, hand opposed outwards; and the blade should form an angle of 45° with the ground, pointed low. *Feints* consist in threatening an attack on one side of your foil and executing it on the other. There are many varieties of these, and the best defence is the *half-circle parade*, which is done by straightening your arm with your wrist on a line with your shoulder, and by a quick motion of your wrist, sweeping the point of your foil from right to left; thus covering your body from head to knee, and obliging your adversary once more to come to position. The cavalry sword-exercise is but another instance of fencing applied on horseback.

FERULA, *fer'-u-la* (Lat.), is the classical appellation of a wand or rod. In the time of the Eastern empire, the *ferula* was the name given to the emperor's sceptre. It consisted of a long stem with a flat head, and it is often to be seen depicted on old medals.

FERULE, *fer'-ule*, (Lat., *ferio*, I strike).—A little flat wooden slice or pallet for punishing children at school, by striking them with it on the palms of their hands. It was more frequently used in "the good old times" when teachers believed in the infliction of pain as a valuable means of stimulating the mental faculties.

FESCENNINE VERSES, *fes'-sen-nine*, a kind of rude licentious poetry, common in ancient Italy, and said to have derived their name from the Etrurian city of Fescennium. They were in the form of dialogues between two persons, who satirized and ridiculed each other's follies and vices. They were sung on festive occasions, particularly at weddings, but were distinct from the epithalamia, which were more refined and regular compositions. The emperor Augustus prohibited them, as tending to corrupt the public morals. Similar verses are now popular among the Italian peasants.

FESS.—In Heraldry, lines drawn horizontally across the shield, and containing the third part of it. It is one of the honourable ordinaries, and is supposed to have been intended to represent the girdle of honour, one of the insignia of Knights.

FESTOON, *fes-toon'* (Fr., *feston*).—Strictly speaking, this word means a garland or wreath; but in architecture, sculpture, &c., it is applied to designate an ornament composed of flowers, fruits, and leaves interwoven or twisted together, suspended at each end. The ornament is frequently used in Roman and Renaissance buildings.

FETLOCK, *fet'-lok*, in Heraldry, the fet-

lock or fetterlock, is represented by a short bar of iron with a hoof or chain connecting the ends. Such a fetlock was placed on the leg of a horse, when at pasture to prevent it running away.

FEUD, *fude* (Ang.-Sax., *fægt*), denotes a deadly quarrel or enmity subsisting between one tribe or family and another. They formerly prevailed extensively among the northern nations of Europe, and were a combination of kindred to revenge the death of any of their blood against the slayer and all his race, and were frequently kept up for many generations. (See VENDETTA.)

FEU DE JOIE, *fu-de(r)-zhvaw'*, a term derived from the French, and applied to bonfires lighted in public places and in villages, to celebrate any important event or festive season. These *feux de joie* were known amongst the Romans, as Romulus instituted a species of them, particularly in honour of the building of the city of Rome. The term *feu de joie* is also often applied to a salute fired on any particular occasion, in celebration of festivals, &c.

FEUILLETON, *fu(r)'-ye-ton(g)* (Fr.), is properly a small leaf, but is generally applied to that part of a political newspaper which is devoted to news of a non-political character, as criticisms on literature and art, &c., and which is commonly, in continental newspapers, to be found at the bottom of the page. The *feuilleton* is an invention of the *Journal des Débats*, which, in 1800, introduced the system of giving literary criticisms in this form. Afterwards the *belles-lettres* element began to prevail in the *feuilleton*, and Jules Janin became the acknowledged king in this class of literature. In the years immediately preceding the Revolution of February, whole romances were spun out in the *feuilleton*; and in particular, the *Constitutionnel* made large sums from the social romances of Eugene Sue, which it first published in this way. The French system has been imitated in England and Germany, and many of the English provincial newspapers now publish stories continued from week to week.

FIACRE, *fe-akr'*.—A name given to French hackney-coaches, because they were used to convey pilgrims from Paris to the shrine of St. Fiacre at Breuil, and started from an inn known by the sign of St. Fiacre.

FIASCO, *fe-as'-ko* (Italian, *flasco*, a flask).—A failure on the part of an actor or singer to please the audience, and generally applied to an actual break down, the performer being as worthless as a broken bottle.

FICTION, *fik'-shun* (Lat., *factio*, from *finjo*, I feign). (See NOVEL, ROMANCES.)

FIDDLE. (See VIOLIN.)

FIELD, *feeld*, in Heraldry, the field is the whole surface of the escutcheon or shield. In blazoning, the tincture or metal of the field must be the first thing mentioned.

FIELD WORKS, military works thrown up by an army when besieging a fortress or town; also those works erected by the besieged for the purposes of defence. Trenches, rifle-pits, &c., like those constructed by our army in the Crimea, are instances of one class of field works.

FIELD SPORTS, diversions in the field in pursuit of games, as hunting, shooting, coursing, &c.

FIELD OF THE CLOTH OF GOLD,

the name given to a plain near Calais, in France, on which Henry VIII. of England met Francis I. of France in June, 1520. The nobility of both countries displayed an excessive gorgeousness of apparel, from which the meeting took its name.

FIFE, *fife* (Fr., *ffire*), a wind instrument of music resembling a small flute in its form and method of performance, seldom having any keys, and never more than one. Fifes are of three kinds, called respectively A, B, and C. They are made from ten to sixteen inches in length, with or without a joint. The B fifes are the longer and lowest in tone, while those tuned to the key of C are the shortest and highest, and are much oftener used; they have a compass of two octaves. When employed for military purposes, or open-air performance, the fife is a very stirring as well as useful instrument.

FIFTH, *fifth* (Sax., *fiſtu*), in Music, a distance comprising four diatonic intervals, that is, three tones and a half. As consecutive fifths do not produce a good effect, they are not allowable in harmony. There are three kinds of fifths—viz., the perfect fifth (C—G), consisting of three whole tones and a semi-tone; the flat, diminished, or imperfect fifth (B—F), consisting of two whole tones and two semi-tones; and the extreme sharp, or superfluous fifth (C—G sharp), composed of four whole tones.

FIGARO, *fig'-a-ro*, is a dramatic character, brought by Beaumarchais on the stage at Paris about 1785, in his two dramas, the *Barbier de Seville* and *Mariage de Figaro*. Since that time Mozart, Paesello, and Rossini have made the name celebrated in classic operas. A satirical and political newspaper published in Paris is entitled *Figaro*.

FIGURANTES, *fig'-u-rants*, dancers, who, in ballets, occupy a similar position to the members of the chorus in an opera. They dance in groups, not singly as the principal dancers do.

FIGURE, *fig'-ur* (Fr., *figure*; Lat., *figura*), expressive of the form, shape, or distinguishing characteristics of anything as expressed by the outline or terminating extremities. In *Arithmetic*, the term is applied to certain characters, by which any number which can be expressed by a combination of the nine digits and the cipher is denoted; as, 1, 2, 3, 4, 5, 6, 7, 8, 9, 0. These figures are called Arabic, on account, as it is surmised, of their being introduced into Europe by the Arabians. In *Theology*, the term *figure* is used to denote a type or symbol.

In *Geometry*, it is used in two different senses. In the first instance, it denotes, generally, a space bounded on all sides, whether by lines or by planes; in the second sense, it signifies the representation (by drawing on paper or otherwise) of the object, or subject of a theorem or problem, in order to render the demonstration or solution to be more easily understood and followed; in this last sense, the word *figure* is analogous to *diagram*. All bodies are necessarily inclosed by one or more boundaries, and therefore possess figure; hence, *figurability*, or the quality of possessing figure, is termed one of the first essentials of matter.

In *Painting*, and art generally, figure is applied to the representation of living objects, as a statue or the form of man.

In *Rhetoric*, is defined to be, in general, "that language which is prompted either by the imagination or by the passions." Rhetoricians commonly divide them into two great classes—figures of words and figures of thought; the words in the former case being employed in a sense different from their original and primitive meaning; in the latter the words are used in

their proper and literal meaning, the figure consisting in the turn of thought. Figures serve to enrich a language and render it more copious; and they also bestow a dignity upon style, by enabling us to avoid the frequent use of common expressions to which the ear has been accustomed; also, as illustrations, they enable the speaker to represent his conceptions more vividly.

FIGURE-HEAD, an ornamental figure or bust, emblematical of war, navigation, or commerce, &c., fixed on the top of the projecting portion of a ship's stem or cutwater.

FILE (Lat., *filum*, a thread), the term applied to two soldiers standing one before the other, or conjointly to any soldier in the front rank and the man who stands immediately behind him in the rear rank, when the company or regiment is drawn up in line. A body of soldiers is often spoken of as consisting of so many rank-and-file, which includes the corporals, lance-corporals, and privates, who stand in the ranks, the officers and sergeants have different posts assigned to them in front, on the flanks, or in the rear of the company, as occasion requires; thus, a company of 80 men, exclusive of officers and sergeants, would be spoken of as consisting of 80 rank-and-file, or 40 files.

File-Marching.—When a company is drawn up in line, and the order is given to face to the right or left and march in that direction. This method of marching is called file-matching. Each front rank man and his rear rank man on his right or left, according to the direction in which the company has faced, still composes a file. Men marching singly in a line, one after another, are said to be marching in single or Indian file.

FILIBUSTERS, *fil-le-bus'-ters*, is the name given to certain adventurers in America, and is derived from the French *filibustiers*, a corruption of the English freebooters or buccaneers. (See **BUCCANEERS**.) The filibusters came into notice after the war between the United States and Mexico, and exerted themselves in setting on foot, within the United States, military expeditions designed to operate in the Spanish-American countries to the south. The pretended object of these expeditions was the emancipation of those countries from tyranny, foreign or domestic, and the introduction of democratic institutions after the model of the United States; but their real object undoubtedly was their own aggrandizement, by re-enacting the part of the original Spanish conquerors. The most noted expedition of this sort was that led by William Walker against Nicaragua in 1855, who succeeded in maintaining himself in that country for nearly two years; but was at length expelled by the union against him of the other Central American states. Walker was subsequently taken and shot at Truxillo, in Central America, in 1860, when engaged on another piratical expedition. Filibustering is also a cant term used of late years in the legislative assemblies of the United States to designate the employment of parliamentary tactics to defeat a measure, by raising frivolous questions of order, calls to the house, motions to adjourn, &c., in order to weary out the opposite party and to gain time; the adoption, in fact, of the method so discreditably known in our own Parliament as "obstruction."

FILIGREE, or **FILAGREE**, *fil'-e-gre*, *fil'-la-gre* (Lat., *filum*, a thread, and *granum*, a grain), a delicate species of ornamental work in gold or silver, wrought in little threads of the metal intertwined in eccentric forms and patterns.

It is of eastern origin, and was first introduced into Europe by the Italians. In the East, India, Sumatra, and Java have been celebrated for the high excellence to which they have arrived in the cultivation of this art. When the gold or silver has arrived at a molten state, it is drawn into wire and then twisted. After twisting, it is hammered down again into a flat state, and formed into the shape of flowers and leaves. When the *filigree* is finished, it is cleansed by boiling in water with common salt and alum, or occasionally lime-juice. The Chinese often manufacture filigree jewellery, but which is not so elegant as that produced by the Malays.

FILLIBEG. (*See* KILT).

FILLET, *fil'-let* (Lat., *filum*, a thread), the name given to a narrow band, or flat ribbon-moulding, frequently used to divide mouldings of a curved form. It is a common feature in architectural designs, especially in entablatures. It is distinguished from the band by being of narrow width and always flat.

FILLY, *fil'-le* (Ang.-Nor.), a name applied to a young mare before it has reached its third year. For further information *see* article HORSE.

FINALE, *fin-a'-le* (Lat., *finalis*), the last portion of any act of an opera, or part of a concert. Finales are of different kinds. In instrumental music, they are commonly of a lively character and performance, combined with a quick movement; while in operas, they generally consist of a series of compositions for many voices, and are various in character, time, and movement.

FINE ARTS.—This term may be viewed as embracing all works which are executed by the mind and ingenuity of man. The phrase has of late, however, been restricted to a narrower and more technical signification, and it is chiefly applied to painting, sculpture, music, poetry, and architecture, as the five principal or greater fine arts, all of which appeal to the eye, as the medium and interpreter of the pleasure derived. Notice of the various national schools of painting, and of sculpture are given under separate headings.

Art Manufactures.—The term is employed to distinguish a certain class of manufactures of a scientific and ingenious nature from others which only require manual skill and dexterity. The line of demarcation between the fine arts and the manufacturing arts is undefined, and in many respects they blend together. From the period of the 17th century, science and art have been drawn more closely together, and in later years have made rapid progress, each mutually assisting the other. The establishment of schools of art in connection with manufactures is only of recent date in England; but the manner in which all classes have aided and supported the various schools of design and mechanics' institutions shows that the nation appreciates the value of cultivating manufacturing art. We see the same thing, also, in the great success which has attended the production of popular works on science in modern times. The discoveries of photography and electro-plating form closer bonds between science and art. For many years past, the British government has applied annually for a grant in aid of scientific and artistic education, which has been variously applied; but the Museum at South Kensington, which was suggested and carried out by the late much-lamented Prince Consort, is the most important result of late years. By means of this institution, and others of a like character, a knowledge of science and art is disseminated among the workmen and workwomen of the kingdom. Another step in the same direction is the appointment of eminent sculptors and painters, in order to design models and patterns for manufactures. In France, more attention is paid to the artistic educa-

tion of artisans than in any other country. The Conservatoire des Arts et Métiers, in Paris, is a most remarkable institution. It consists of a number of large halls, each of which is devoted to some particular trade, or branch of manufacture, and contains a perfect collection of the raw and the manufactured produce, together with all the implements employed in the process. A lecturer is appointed to each hall, for the instruction of the people.

Art-Unions, institutions formed with the object of promoting a more liberal patronage of, and a livelier interest on the part of the general public in, the fine arts. The original notion or foundation of art-unions belongs to France, in the days of the first Napoleon. They were afterwards established in Belgium, and ten years later were encouraged and adopted in Germany. The art-union of Malines commenced its operations in 1812; that of Munich in 1823. The eminent Alexander von Humboldt, who took great interest in these institutions, recommended their adoption; and his advice was carried into effect in Leipzig, Dresden, Berlin, Halberstadt, Breslau, and other towns and cities, and, in 1833, nearly every important town in Germany could boast of its art-union. Since then, groups of associations, each including several towns, such as Hanover, Cassel, Brunswick, Gotha, Halberstadt, Magdeburg, and Halle, have been formed for the encouragement of works of the highest class of art; and the influence of these aesthetic associations in improving and refining the general public taste, by the collection and distribution of modern works of art, has been most powerful and beneficial. From Germany art-unions were introduced into Scotland and England. An art-union was formed at Edinburgh in 1836. The Art-Union of London was established in February, 1837, and in December, 1846, received a royal charter. The Art-Union Indemnity Act, by which the society was exempted from the penalties imposed by the Lotteries Acts of 1826 and 1836. (*See* LOTTERIES.) Many similar art-unions have been formed on a smaller scale. The constitution of art-unions, which with some few exceptions, is common to all, is as follows:—Every member pays an annual sum—in England usually one guinea—in return for which he receives an acknowledgment, which serves the purpose of a ticket in the lottery, by means of which the pictures, statues, and other works of art purchased with the whole sum thus contributed, are distributed among the different members. A certain amount of the money is generally kept in hand, and applied to the execution of an engraving, a copy of which is presented to each of those members who have drawn a blank in the lottery. The method of distributing the funds of the unions varies in different places. In London the money itself is distributed by lot, and the holders of prizes are compelled to expend it on the pictures exhibited, the selection being left to their own judgment. On the Continent, the whole sum collected for the year is placed in the hands of a committee of gentlemen, elected for their artistic tastes and acquirements, who select works of art, which are distributed to the subscribers by lot.

FINGER-BOARD, *fin'-ger-bord* (Ang.-Sax.).—That thin black board which extends over the necks of instruments of the violin kind, on which, during performance, the strings are pressed by the fingers of the left hand, is denominated by this term. The whole of the keys of a pianoforte or organ are sometimes described as the finger-board, but key-board is the more usual term.

FINGERING, *fin'-ger-ing* (Ang.-Sax.), the art of so disposing the fingers on any musical instrument, more especially on the pianoforte and organ, as to produce the required notes in an easy and graceful manner.

FINIAL, *fin'-al* (Lat., *finis*, end, termination), in Gothic Architecture, the term by which the carved ornament which surmounts the top of pinnacles, canopies, mouldings, &c., is designated. It is generally in the form of foliage clustering round a knob or boss. The ornament called a

poppy-head, frequently used to finish the upright sides of open pews in churches, is a finial.

FINITE, *fī-nīte* (Lat., *finis*, end), signifies having a limit, bounded. It is the opposite of *infinite*.

FINNISH LANGUAGE AND LITERATURE, *fin'-nish*.—The language of Finland forms one of the chief branches of the Uralo-Altaic family, being, with the Esthonic and Lappish collaterals, kindred to the languages of the Ugrians, or Eastern Turks, Osmanli Turks, Samoyeds, and other Tartars, Magyars, Mongols, and Tunguses, whose chief branch are the Mantchoos. All these constitute the so-called Scythic, or Turanian, or Allophylic family. The Finnish comprises a number of dialects, of which the principal are the lower, which is used along the coasts, its Abo variety being that which is used in books; and the upper, which is spoken in the inland regions, divided into the sub-dialects of Ulea and Viborg. It is written by Latin or German characters; but the letters *b*, *c*, *d*, *f*, *g*, occur only in a few foreign words, and *q* is now obsolete. It is, however, rich in vowel-sounds, having no fewer than eight, *ä* and *ö* standing at the end of the alphabet. It has also many diphthongs, and, according to Rask, it is the most harmonious of tongues. The nouns have fourteen cases, which are expressed by suffixes or postpositions to the nominative, and plurality is denoted for the nominative by suffixing *t*, and for the other cases by inserting *i* before their endings. There are only two declensions, the one for nouns ending in a vowel, the other for those ending in a consonant. The declension of adjectives is essentially the same as that of substantives, while the comparative ends in *mbi* and the superlative in *in*. There are no grammatic genders, the sexes being indicated either by distinct words or by epithets. The verbs have only two simple tenses, —the present and the past, the others being periphrastic. Their conjugation is complicated, their voices, moods, and other nice shades of meaning, being expressed by certain syllables inserted between the root and the personal suffixes. There are no separate particles, and all their prepositions are placed at the end of the words to which they are related. From the number of syllables thus brought together, some of the words are of great length (from eight to ten, and sometimes even as many as eighteen syllables); but in this way the most complicated ideas may often be expressed in one word, which would require several in most other languages. The construction is extremely free, without endangering the clearness of the sense. There can be little doubt, from the character and construction of the language, that this is not only one of the most ancient but one of the purest of the whole Asiatic-European family, being less mixed with foreign elements than the Hungarian, Turkish, or Mongolian. The literature of Finland is particularly rich in popular songs or *runes*, which are sung by the *runolainen*, or song-men, to the sound of the favourite national instrument, *kantele*, a species of harp with five wire strings. They may be divided into mythical and lyrical songs. These songs were handed down by oral tradition from generation to generation for many centuries, until at length, about the close of the 18th century, Professor Porthan, the Bishop Percy of Finland, made a collection of them, which was published at Abo. With the death of Porthan the subject went to sleep, until Dr. Topelius entered upon

the same field, and published five volumes of ancient and modern popular songs, the last of which appeared in 1831, at Helsingfors. Topelius prepared the way for Dr. Elias Lönnrot, the most enthusiastic and successful of all the collectors of old Finnish poetry. He was fortunate enough, in 1832 and the following year, to discover among the peasants of Karelen, and still farther on in Russia, a series of valuable poems, preserved by tradition, and comprising a mythical epic on the subject of the Finlandic Orpheus, the God of Song, Wäinämöinen, his journeyings and adventures. He endeavoured, as far as possible, to present this cycle of songs in a connected epic form, and published them under the name of "*Kalevala*" (from *Kaleva*, the great ancestor of all Finnish heroes), at Helsingfors, in 1835. In 1834, the Finlandic Society of Literature was established at Helsingfors, and has done much to spread a knowledge of, and develop a taste for, this language. In 1854, Rudbäk published a collection of Finnish legends and tales. These publications have given a great stimulus to the study of the Finnish language; and while the upper classes still cling to the use of the Swedish, the peasantry welcome with avidity every addition to the limited stock of their printed literature. Newspapers and periodicals in their native tongue now circulate among them, and are eagerly read. The prose literature of the people is devoted almost exclusively to religious and moral subjects. A Finnish translation of the New Testament appeared in 1548, and a portion of the Old Testament in 1552; but the whole Bible was not translated into Finnish till 1642. The best grammar of the language is that of Jacob Juden, in Swedish (Viborg, 1818), and the best dictionary that of Lönnrot, Helsingfors, 1853.

FIORD, or **FJORD** (*fē-ord*), the Norwegian and Danish name applied to any bay, creek, or arm of the sea which extends inland. It is somewhat analogous to the Celtic *lough* or *loch*.

FIRMAMENT, *fīr'-ma-ment* (Lat., *fīrmamentum*), was a term used in ancient Astronomy to signify the eighth heaven, or sphere in which the fixed stars were placed. It was called the *eighth* heaven because of the seven spheres of the planets which it surrounds. The *firmament* was supposed to have had two motions; one from east to west, round about the poles of the ecliptic, and another and opposite motion from west to east. These revolutions it is said to complete in 25,412 years, or, according to Copernicus, in 258,000 years; at the end of which time the fixed stars return to the exact points that they occupied prior to their revolution. In the classics, the period was denominated the Platonic or great year. The word *firmament* usually designates the expansive arch over our heads, in which all the various phenomena of the stars and planets appear to take place. In the Old Testament the word is used as the equivalent to the Hebrew *rakia*, expanded or stretched out, denoting the hemisphere above the earth.

FISHING. (See **ANGLING**.)

FITCHE, *fīt'-tchāi*.—In Heraldry, crosses are described as *fitché*, or fitchy, when the lower branch ends in a short point.

FITZ, *fīts* (old Nor.), signifying son, and evidently a corruption of the Latin *filius*. It is prefixed to proper names, like the Scotch *Mac*, the Irish *O*, and the oriental *Ben*, to signify de-

scent, as in the names Fitzwalter, Fitzwilliam, Fitzherbert. It has also been employed in recent times to denote the natural sons of kings and princes, as in Fitzroy, Fitzjames, Fitzclarence.

FITZWILLIAM MUSEUM.—A museum established at Cambridge by a bequest of Viscount Fitzwilliam, who, in 1816, left his library, pictures, &c., to the University, with £100,000 for a building to contain them.

FIVES, GAME OF.—A ball game, formerly known as hand-tennis, the present name being taken from the ordinary mode of playing by two sides of five each. The game resembles in many respects tennis, or rackets, but the ball is struck with the palm of the hand instead of with a bat. It is a lively game, requiring great quickness and activity on the part of the players.

FLAGEOLET, *flaj'-o-let* (Fr.), a small musical instrument of the flute kind, played on by means of a mouthpiece at the upper end. It is generally made of box, ebony, or other hard wood; but sometimes of ivory, and has a clear and shrill tone. There are *double flageolets*, consisting of two tubes united by one mouthpiece. This instrument is now very seldom used.

Flageolet Tones, the harmonic notes of the violin and other stringed instruments. (See HARMONICS.)

FLAKE-WHITE, a pigment, consisting of a preparation of carbonate of lead. It is much used in painting in body-colours, being a substance with which transparent colours derived from vegetable matter may be mixed and rendered opaque, so that they may be laid on vellum or paper in the form of an even coating, possessing some degree of thickness and consistency. It is also used for putting in the high lights in drawings in water-colours, and crayon drawings in two or three tints; but it is apt to become brown and discoloured in course of time.

FLAMBEAU, *flam'-bo* (Fr.), a kind of torch made of thick wicks, covered with wax, and used at illuminations and processions in the streets at night. The word is sometimes applied to any kind of torch. Dryden, in his fine poem, "Alexander's Feast," says, "The King seized a flambeau, with zeal to destroy." Some old English writers spell the word "flamboy."

FLAMBOYANT, *flam-boy'-ant* (Lat., *flamma*, a flame), the name given to French ecclesiastical architecture of the 15th century, derived from the beautifully carved tracery of windows and panels, which appears to run in waving lines somewhat resembling the various directions taken by lambent flames of fire.

FLANCHES, *flanch'-es*, in Heraldry, arched lines drawn from the upper angles of the escutcheon to the base points.

FLANK, *flank* (Fr., *flanc*), in Military, a term frequently applied to either side of a body of troops; the extremities of a body of soldiers in line, or the sides of a column, being termed the right and left flanks respectively. In any defensive work, it is applied to that part from which a fire may be directed against the side or flank of an attacking party.

FLAT, *flat* (Du., *plat*), in Music, a character employed to lower or depress any note or notes in the natural scale one half-tone. An *accidental flat* is one which, although not occurring at the commencement of the staff, is inserted in any

other part of it, and only affects the bar in which it is placed.

FLECHE, *fleishe* (Fr., *flèche*, an arrow), a small work, so called because its outline resembles the shape of a broad arrow.

FLEET, *fleet* (Sax., *flota*, *fliet*), the term applied to the different detachments, or squadrons, which form the navy of any country, which are stationed in various parts of the world, for defence, aggression, or intimidation. In the more extended interpretation of the term, it is also applied to any company of vessels united together, and sailing with one object, either mercantile or warlike. (See NAVY.)

FLEMISH LANGUAGE AND LITERATURE, *flem'-ish* (Ger., *Flämisch* or *Vlämisch*).

—The Flemish is the vernacular language of the Flemings, an ancient people who inhabited certain parts of Belgium and Holland, and who number upwards of 2,000,000. It is a form of the low German, and the Dutch of the present day is a modern offshoot of it. It is more palatal and nasal than the language of Holland, which, on the other hand, is more guttural; but the differences are not essential. So little change has taken place in this language, that the earliest monuments of its literature, an ordinance of Duke Henry I. of Brabant (1229), is perfectly intelligible in the present day. Among the more remarkable of the earliest works in this language are the *Rymbybel*, or Bible in rhyme; and the *Spiegel historiel*, the Historical Mirror, of J. Van Maerlant (born in 1235); the Civic Laws of Antwerp (1300); the Chronicle of J. Van Clere, and many others; a translation of Boethius, by Jacob Velt, of Bruges, of the 15th century; and the "Hive of the Catholic Church," by Philip Van Marnix (1569). Many French forms of speech were introduced during the Burgundian reign, and also many Dutch during the sway of the Hapsburgs; so that the old Flemish lost much of its purity and terseness. A translation of the entire Bible into Flemish was completed about the middle of the 17th century by two Flemings, Bandaert and Walour, and two Dutchmen, Bogermann and Hommias. Hooft, Vondel, and Cats, are the three men whose names figure most prominently among the writers of the 17th century. Hooft was a poet, but is best known by his excellent "History of the Netherlands;" Vondel was a satirical dramatist, and, in his later days, an ardent advocate of the Roman Catholic religion, which he had adopted; and Cats, a lawyer and statesman, was a popular poet, whose works, appealing to the domestic feelings of his countrymen, are still held in great favour. The 18th century furnishes scarcely any name of note. Under Napoleon, every effort was made to suppress the use of this language and introduce the French; and it is only since the revolution of 1830 that the Flemish has again come to occupy its former position. Since that time numerous societies and unions have been formed, newspapers and periodicals published, and other means adopted, with a view to diffusing a knowledge and a taste for the cultivation of this language. On the occasion of a linguistic congress at Ghent, in 1841, the members of the government, for the first time, publicly addressed the people in the Flemish language. Among modern Flemish authors, Blommaert and Conscience occupy a distinguished place. Besides the Flemish grammars of Van Beers and Heremans, and the dic-

tionary of Sleecx, we may mention *Vandenbossche, Nouvelle Grammaire, raisonnée pour apprendre le Flamand et le Hollandais*, 1825; *J. Desroches, Grammaire Flamande*, Antwerp, 1826; *Vandenhoven, La Langue Flamande, son passé et son avenir*, Brussels, 1844; *Lebrocq, Analogies Linguistiques; du Flamand dans ses rapports avec les autres idiomes d'origine teutonique*, Brussels, 1845; *Desroches, Nouveau Dictionnaire Français-Flamand et Flamand-Français*, Ghent, 1805; *Olinger, Nouveau Dictionnaire Français-Flamand*, Malines, 1834. (See, also, *Sleecx on the History and Relations of the Flemish to other Languages*.)

"FLETA," *flé-ta*, is the name of a valuable treatise, in Latin, on the law of England, and is so called from its having been written in the Fleet prison. Nothing is known of the author; but it must have been written about the thirteenth year of the reign of Edward I. It is one of the earliest authorities on English law, and gives a complete account of it as it stood at the time the author wrote.

FLEUR-DE-LIS, *flur-de-li'* (Fr.), the heraldic term for the flower of the water-lily or yellow flag, which constituted the principal feature in the armorial bearings of the monarchs of France prior to the execution of Louis XVI. and the establishment of the first French republic. It was introduced into the arms of France about the year 1140, being first borne by Louis VII.; and from this circumstance its present name may be derived, being a corruption of *fleur de Lys*, or flower of Louis. Some, however, believe it to be so called because it grew in great abundance on the banks of the Lys, a river rising in the north of France, and joining the Escaut near Ghent. It is used as an ornament of the crown of the English sovereign, and the regal insignia of many of the continental monarchs, and it forms, in Heraldry, the mark of cadency for the sixth son.

FLINT IMPLEMENTS AND WEAPONS, are relics of the primitive inhabitants of Europe, which have been discovered from time to time, by being accidentally turned up whilst ploughing in fields, or by the zealous search of some indefatigable antiquary. Arrow-heads and hatchets are the forms in which the weapons are mostly discovered, and there is an unlimited variety in the shape and construction of even these. (See CELTS.)

FLOATING. (See SWIMMING.)

FLOATING BATTERY. (See BATTERY.)

FLOATING ISLANDS, GARDENS, AND HOUSES.—Gardens and islands, formed of patches of wood and weeds, covered with grass, flowers, and other vegetable productions, supported on the surface of the water. On the English lakes there are one or two of these natural eccentricities, and on the Ganges, in India, they are continually passing down the river, being detached from the banks by the force of the currents. On these latter, tall trees are often seen. The lake of Gerdan, in Prussia, has large floating islands; and the lake of Kolk, in Osnabruck, carries a plantation of fine elms. The English lake Derwentwater has a fine floating lake. In northern India, in Cashmere, and on the borders of Thibet and Persia, *floating gardens* are often erected by the natives for the purpose of raising melons, cucumbers, and other similar

vegetables and plants, which require a very aqueous soil for their cultivation. These gardens, however, are of a very fragile nature, and rarely exceed a foot in depth of soil, their prime structure being composed of wickerwork, interlaced with reeds and wattings, and covered with matting, over which the earth is placed. The Spanish invaders found floating gardens on the lake of Mexico. *Floating houses* are built by the inhabitants of Bangk'ok, the capital of Siam, from motives of comfort and safety. These houses form whole streets, being anchored in rows, and are capable of being moved from one position to another at pleasure. From the depth of water, large vessels of from 200 to 300 tons burden, can sail up this picturesque town, and pass alongside the houses of the inhabitants. These floating houses are made of bamboo-stems, wickerwork, and palms, with a verandah in front; and they are built on large rafts.

FLOTILLA, *flotil'-la* (Spanish), signifies, properly, a little fleet; and though sometimes used in this sense, it is more frequently applied to a fleet of whatever size, composed only of small vessels.

FLORID ENGLISH. (See PERPENDICULAR ENGLISH.)

FLOWERS, LANGUAGE OF. (See LANGUAGE OF FLOWERS.)

FLUTE, *flute* (Fr.), a popular musical instrument, the use of which, under various forms, may be traced to the most remote ages. In its primitive state, the flute was played like the modern flageolet, with a mouth-piece at the upper end; and from the shape of this mouth-piece, which resembled the beak of a bird, it received the name of *flute à bec*. In this form, with slight alterations, it continued until the beginning of the last century, when it was gradually superseded by the *flauto traverso*, or transverse flute, so called from its being blown at the side, and consequently held in a horizontal position. The sound is produced by blowing into an orifice, part of which is covered by the lips, so that the air, in its passage from the mouth, impinges against the opposite edge of the hole. At its introduction, this instrument was about eighteen inches in length, and had but one key. Shortly afterwards, a movable head-joint was invented, its length being increased, and more keys added; some flutes at the present time having more than a dozen keys, and few less than six. By means of these, they are enabled to execute any music, however chromatic, if within their compass. Flutes for solo-playing have in some cases a compass from G below the treble to C in altissimo.

Flute-work.—In organs, a particular class of stops distinct from reed-work.

FLUTING.—In Architecture, mouldings in the form of hollows or channels cut vertically in the surface of columns, and adopted in the Doric, Ionic, and Corinthian styles. In Romanesque architecture, the fluting is not vertical, but twines round the shaft in a fanciful manner.

FLY.—A carriage let out for hire, but of a superior kind to the ordinary hackney carriage.

FOIL. (See FENCING.)

FOLIO, *fo'-le-o* (Italian, a leaf), as used in Book-keeping, denotes a page, or rather the two right and left-hand pages of an account-book, which

are reckoned as one. In Literature, it is used to denote the size of a volume; thus a folio volume, or a book in folio, is one in which the sheet is only folded in two, each leaf making half a sheet.

FOLK-LORE, *fok'-lore* (Ang.-Sax.), is a word which has recently been applied, in the English language, to the ideas, prejudices, and superstitions—such as legends, and other similar stories—of the uneducated classes. The term is generally applied to all those customs and old habits generally handed down from father to son in old retired country villages and parishes; and the folk-lore of England, Scotland, Ireland, and Wales, would form sufficient matter to fill more than a volume. The fairy tales of the Irish, the “second sight” of the Scotch, the time-honoured old customs of the English, and the legends of the Welsh, are so many instances of what is meant to be designated by “folk-lore.” Old Easter and Christmas ceremonies may also be regarded in a similar point of view. Popular, but unscientific, prophecies with regard to the weather are examples of folk-lore. In illustrating particular periods in history, folk-lore is sometimes a valuable adjunct. Many collections of the proverbs, popular rhymes, superstitious practices, and other folk-lore of various European nations have been made.

FONT, *font* (Lat., *fons*, a fountain), a stone vessel in the form of a large bowl or basin, resting on a pedestal, and used for the reception of water required in the administration of the sacrament of baptism. The proper position for the font is at the west end of the church, opposite the principal porch or entrance. Examples occur, however, in some of our cathedrals and old churches, in which the font is placed in a baptistery divided from the body of the building; and in some of our modern ecclesiastical structures it has been placed in an inclosure formed by low walls, or in a chamber especially designed and constructed for it in the basement of the belfry tower. The fonts that were placed in churches built in the Anglo-Saxon and Anglo-Norman styles of architecture, were generally circular or square, supported on a short but massive pedestal, cylindrical in form. The bowl itself, and sometimes the stem, was often adorned with sculptured figures, scroll-work, or interlaced fret-work. The fonts of the three periods of English Gothic architecture are more frequently octagonal in form, and more richly carved with figures and emblems placed in sunken panels or niches, and the angles of the pedestal are adorned with buttresses. They are also generally raised on a platform, formed of two or three steps. Those of the Perpendicular, or third Pointed style, are generally surmounted by a lofty octagonal canopy in the form of a spire, which was formed of wood, and magnificently carved and embellished with crockets at the angles, and a rich finial at the summit. This custom of covering fonts originated about 1250, in an order that was issued to the clergy to provide covers for these vessels, which were to be kept locked. In a few of our churches the fonts are made of lead, cast in a mould; many of these are covered with figures in bas-relief. They are supposed to have been executed by workmen of no ordinary skill, about the beginning of the 12th century. In the Roman Catholic Church a solemn form for the blessing of the baptismal font is included in the service for Easter Sunday.

FOOT, in Poetry, a metre, or measure, composed of a certain number of long and short syllables. (See METRE.)

In Music, the foot is similar to the poetic foot, the term denoting a short melodic figure of notes with only one accent.

FOOTBALL, a very old English out-of-door game, which was certainly popular in the 13th century, and probably long before then. Games of a somewhat similar kind were played by the Greeks and Romans. It was maintained as a favourite amusement in this country, especially in the northern counties, but when cricket came into fashion, it came to be considered only as a sport suited for rustics. Recently, however, it has revived in popularity, and now almost shares with cricket the position of a national game. Cricket is suited only to the summer months, and dry weather is almost indispensable to the proper playing and enjoyment of the game; but football is a sport for “winter and foul weather,” and, indeed, the muddier the ground and the colder the atmosphere, the more the players appear to enjoy themselves. There are diversities in the mode of playing the game in different localities, but the leading principle is the same. Two parties, or “teams,” are opposed to each other, and at each end of the field is a goal, formed of two uprights and a cross-bar. The players on one side try to kick the ball through their opponents’ goal, and the players on the other side try to prevent such a result, and, in their turn, send the ball through the other goal. The game demands great quickness, activity, and strength, and involves a considerable amount of pushing and struggling, and the players, when the game is finished, are often nearly covered with mud, have their woollen jerseys nearly torn from their backs, and bruises, and even broken limbs, are not unfrequently the result of a closely contested game. With some insignificant variations, sanctioned by the customs of the different public schools where football is a favourite amusement, the game is generally played in accordance either with the Association or the Rugby Union rules. The Football Association was founded in 1863, the object being to frame a set of rules which should be observed by all football clubs; but the code proposed did not meet the wishes of the representatives of the great public schools, who formed the Rugby Union, the members of which play the game in their own manner. The rules for the Association game are 15 in number; but the Rugby Union game is regulated by 59. A goal is obtained at the Association game by the ball passing under the cross-bar of the goal; but in the Rugby game it must be kicked over the bar. As a general rule, the number of players on each side is 11 in the Association game; but the Rugby Union play 15, or even 20, on each side. But the greatest and most striking distinction between the two modes of play is that, in the Association game, no one but the goal-keeper is allowed to handle the ball, while, under Rugby Union rules, any player may take up the ball and run with it, except in a “scrummage,” when handling is strictly forbidden. No score can be made at the Association game except a goal be kicked; but the Rugby laws provide that a match shall be decided by a majority of tries, in the event of no goal being obtained. A “scrummage” in the Rugby game is when the forward players on each side close round the ball, and endeavour to kick it out of

the crowd. This is rough work, and very unpleasant kicks are sometimes received, not by the ball, but by the legs of the players. The ball used is formed of an india-rubber or ox-bladder covered with leather. The Association ball is round, and about 27 inches in circumference; the Rugby ball is about the same size, but the shape approaches an oval. Football clubs now almost rival cricket clubs in number, and matches are arranged, among the most interesting of which are the annual matches between England and Scotland, and for the possession of the Association challenge cup, also contested annually; and there are also frequent county matches.

FOOTMAN.—An old word for foot-soldiers, and used in that sense in the Bible. The modern application of the word is to male servants who attend carriages and visitors. They are generally attired in showy liveries. Formerly, servants ran before the carriages of wealthy persons to clear the way, and from that the appellation footman was taken.

FORAGE, *for'-aj* (Fr., *fouirage*), a military term applied to hay, oats, corn, barley, grass, clover, and other means of sustenance for horses brought into camp.

FORCENE, *for-se-nai'*.—In Heraldry, a term applied to a horse rearing on his hind legs.

FORD, *ford* (Sax., *ford* or *fyrð*), a name applied to that part of a river where the water is sufficiently shallow to admit of any person or persons crossing by means of wading, without having recourse to a bridge, ferry, or any other means of transportation.

FORELAND, *fore'-land* (Dan., *land*), a term which is nearly synonymous with promontory, cape, or headland, applied to any projecting point of land running into the sea—as the North and South Foreland at the mouth of the Thames.

FORELOCK, *fore'-lok* (Ang.-Sax.), the hair that grows from the forehead of the head. In nautical language, it is applied to a small flat-pointed wedge of iron, used at the end of a bolt, to retain it in its place.

FORE-SHORTENING, an expression in Painting and Perspective intended to convey the method of drawing, in strict accordance with the rules of perspective, the limbs or body of a human being, or the body of an animal, when we are looking directly against either of them, in a position which shows their breadth while it conceals their length, either entirely or partially. Or, in other words, fore-shortening occurs when the latter is either approaching or receding from us, and when the former is extended either towards us or from us, in a direction varying from a line which is at right angles to the surface of the eye to another that is parallel with it; under the former of which conditions it would be seen fore-shortened to the greatest possible degree, while, under the latter, it would be viewed in its entire length. Great attention must be paid to the treatment of light and shadow in fore-shortening the arm, leg, or body of a human being, or the carcass and legs of an animal, that the effect produced may convey a correct idea of the intention of the draughtsman.

FORLORN HOPE, *for-lorn' hope* (Sax., *forloren*, left without resource; *hopa*, hope).—A detachment of men, generally volunteers, from different regiments, are selected to assault a

breach, or other position without which a town could not be taken, and the attack on which is certain to be of a very dangerous character; and this is termed taking a forlorn hope.

FORMS OF ADDRESS. (*See ADDRESS.*)

FORT, *fort* (Lat., *fortis*, strong), the name properly applied to a small inclosed work, generally erected near an important fortress or fortified town, to command any of the approaches to it. Forts are also frequently erected on the sea-coast, for the defence of certain positions, and are garrisoned by a small body of troops. Although they do not inclose a space of any great extent, yet they are strongly constructed, and, being placed in commanding situations, often form an important line of defence. In British North America, trading forts barricaded or otherwise defended against attacks by savages.

FORTÉ, *for'-tai*, in Music, an Italian term for loud; the superlative being fortissimo.

FORTIFICATION, *for-tif-e-kai'-shun* (Lat., *fortis*, strong, and *facere*, to make), the art of constructing works of defence and offence for the protection or reduction of any important town or position. Such works are commonly divided into two classes, respectively known as permanent fortifications and field-works. Under the former, all works are included that are constructed for the defence of a town, harbour, arsenal, dockyard, &c., being carefully laid out and built with a view to durability and the resistance of an attack, whenever it may be made; while, under the latter, all works are classed that are intended to serve a temporary purpose; such as siege-works and batteries for an attack on a fortress, or lines of intrenchment hastily thrown up for the protection of an army in the field, or to check the advance of an enemy on an important strategical position. The existing system of fortification doubtless found its origin in early ages, in the formation of a mound and trench round any small collection of dwellings, for the purpose of affording the inmates and their possessions some protection from the attack of a marauding foe; a gate being made in one part of the rampart for the ingress and egress of those that dwelt within it, with a movable bridge for the passage of the ditch. This method was pursued by the Gauls and Britons in the time of Cæsar; and they added strength to the earthen mound by throwing it up against a stockade of stout stakes or piles, which were driven into the earth in close proximity to each other, and interwoven with boughs and branches of trees. The field-works of the Romans were as effective as the permanent fortifications of the savage tribes of Central and Western Europe, remaining in many parts of England to this day, as a testimony to the skill of the Roman soldiers in fortifying even temporary camps, and the great strength of their works. But the field-works of the Gauls and Britons consisted of nothing more than their cars and waggons disposed round the camp, in the form of a circle, and strengthened by an abatis, or barricade, formed of the branches and trunks of trees, very similar, in fact, to the "lager" temporary camps adopted by our forces in South Africa. At a very early period stone walls of considerable breadth and great strength took the place of the simple rampart of earth, for the defensive works thrown up around "fenced cities;" and these were furnished with battlements and machicolations (*see MACHICULATION*) for the pro-

tection of the archers that manned the walls, and as a means of annoying the besiegers who might attempt to undermine the rampart. The spaces between the battlements, and the battlements themselves, were subsequently modified into the parapet-wall and embrasures, as we now have them, on the introduction of cannon. Examples of early fortifications are to be found in the remains of the Cycloplan walls that once surrounded the old Greek cities of Tiryns and Mycenæ. The Phenicians are said to have been the first who regularly fortified their cities with stone walls; but, however this may be, it is certain that the cities of Egypt, and the great cities of Assyria—Babylon and Nineveh—were girdled with fortifications of marvellous strength and size, on which several chariots could be driven abreast of each other. Until the year 1500, the characteristics of the defensive works of a town were nearly the same in all countries: first, they consisted of a lofty and massive polygonal wall of great thickness, with a *fausse-braye*, or bank of earth, thrown up in a sloping form against the exterior, to protect it from the attacks of the battering-ram. Then towers were added, in the form of a large square or semi-circular buttresses, projecting from the angles, and also from the face of the wall in various parts, which enabled the defenders to enfilade that portion of the wall which lay between any two of them, and so defend it in a more effectual manner from the attacks of assailants who sought to make a breach at its base with their engines of war. These flanking towers were the origin of the modern bastions. Outworks were then constructed beyond the ditch, opposite to the different entrances to the town, for the better protection of the gates, connected with the main works by drawbridges. While this disposition of the wall, and its various parts, may be traced in all the fortifications of ancient cities, and those of the towns and castles of the Middle Ages, so it may be seen more fully developed in the curtains, bastions, crown-works, and bridge-heads of the fortifications of modern times. The old method of construction was efficient enough as long as battering-rams, scaling-ladders, and similar engines, formed the chief means of attack, and javelins and arrows the most formidable projectiles that could be showered on the assailants by those who manned the walls; and no modifications of the principles of construction were found absolutely necessary until the invention of cannon, which followed closely on that of gunpowder, in the 14th century, directed the thoughts of the soldier architects of the succeeding cycle to seek means whereby the new weapon might be made as efficient for the protection of the walls, by a proper disposition of the faces of the works with reference to each other, as it was effective in causing breaches in the ramparts, that rapidly crumbled under the crushing shock of the heavy balls of stone and iron that were hurled point blank against them. The result was the introduction of bastions of the present form, instead of the old flanking towers, projecting from the corners of the work in salient angles, the rampart forming four sides of an irregular pentagon, the fifth, or gorge, being left open as a communication between the bastion and the interior of the fortress. But the chief fault of the old flanking towers was equally perceptible in the new bastions: they were still too small, and too far apart, to defend each other in an efficient manner; and the platforms or terre-pleins of the majority were not calculated for the

reception of artillery of any size. Towards the end of the 16th century, an attempt to remedy this defect was made by Errard de Bar le Duc, a French engineer, who introduced considerable improvements into the received methods of constructing fortifications. He made the faces of his bastions much longer, and the curtains connecting them much shorter, than they had hitherto been; but the faces of the bastions terminated at the shoulders in *orillons*, or pieces of the rampart in continuation of the face, which were in the form of an arc, and entered towards the interior of the bastion; and his flanks, which were bereft of their due proportions by the orillons, were disposed at an angle of 80° to the curtain, which would inevitably bring a fire of musketry, directed from the flank at right angles to its face, on the defenders occupying the opposite extremity of the curtain. De Ville, an engineer who flourished about 1630, lengthened the flanks, and constructed them at right angles to the curtain; but a still further advance to the present system was made about fifteen years later, by Count Pagan, who constructed the faces of his flanks in lines perpendicular to the faces of the collateral bastions produced, which caused them to splay outwards from the curtain in such a direction, that a fire directed perpendicularly from the faces along their entire length would enfilade the faces of the collateral bastions, and prevent an attacking party from effecting a lodgement in the ditch. He also constructed double and triple flanks to his bastions, which were parapets parallel to the faces of the outer flanks, rising above one another in tiers towards the interior of the bastion. It remained for Vauban to give a systematic method of constructing regular fortifications, which he effected by taking fractional parts of the length of the side of the polygon within which the *enceinte* was formed, and which was bounded by lines drawn to join the salient angles of the bastions (which, indeed, were coincident with the angles of the polygon, as far as their vertices were concerned), to furnish the dimensions of various parts of the work. This is the foundation on which all other systems are based which have been introduced since Vauban's time, and a knowledge of it is required from all candidates for commissions in the army. Vauban improved the construction of the ravelin, and was the first engineer who introduced ricochet firing on attacking a fortress. He also formed traverses in the covered way, to protect the besieged from this kind of firing, and the places of arms at the salient and re-entering angles of the covered way. The Dutch engineer Coehern was contemporary with Vauban, and constructed the fortifications of most of the principal towns of Holland and Belgium. His system is very similar to those of Vauban; but it is distinguished by the introduction of large orillons, forming casemated batteries at the shoulders of the bastions. He also constructed works of great strength in the interior of the bastions, as well as in front of them; and redoubts in the interior of the ravelins, which protected his curtains. About 1740, Cormontaigne, a Frenchman, introduced a system founded on Vauban's, in which he extended the faces of the ravelin in front of the curtain, diminishing the extent of the salient angle formed by them. He also formed retrenchments in his bastions, and made the re-entering places of arms in the covered way large enough to admit of the construction of redoubts, having the main ditch immediately in

their rear. These were useful in adding to the means of defending the covered way, and they also protected the openings that appear between the extremities of the tenaille and the flanks of the bastions, on either side of it. Various additions and modifications of these systems have been introduced from time to time by English, French, and German engineers, since 1750. In the present century, however, the most remarkable is the new system, introduced by the Prussians, of surrounding the place with a polygonal *enceinte* without bastions, and protecting them by flank fires from works resembling caponnières, projecting at right angles from the main walls at the centre of each side of the polygon, so that the guns of the *enceinte* flank the caponnières, while those of the caponnière flank the *enceinte*. The head of the projecting work is protected by a ravelin, the faces of which can also be enfiladed from the *enceinte* by guns placed in casemates cut in the proper direction. In the siege of Sebastopol, the Russian general Todleben, one of the most skilful engineers of modern times, employed large earthworks with singular success for the protection of the town.

FORTRESS, *for'-tres*, a city or town surrounded by regular works of defence, that requires to be invested by an attacking force, and subjected to regular siege operations before it can be reduced. Fortresses are generally found on the frontiers of continental states, and in the immediate vicinity of important harbours on the sea-coast, where there are extensive naval dock-yards and arsenals, and great quantities of Government stores are gathered together.

"FORTUNATUS", *for-tu-nai'-tus*, is the title of one of the best German *Volksbücher* (people's books) ever written, and which has been translated into perhaps every language of Europe. It originated in the 15th century, though many of the tales included in it are of much older date. The oldest printed edition of the book now extant was published at Frankfort in 1509. The story is, that Fortunatus and his sons are the possessors of an inexhaustible purse of gold and a wishing-cap, which, however, in the end, prove their ruin. The story was dramatised by Hans Sachs, the poet of Nuremberg. Thomas Decker made it the subject of his "Pleasant Comedie of Old Fortunatus" (1600); and Tieck gives the story in his "Phantasus" (3 vols. Berlin, 1816).

FORTUNE-TELLING.—A form of imposition practised by gypsies, who pretend to tell credulous people what will happen to them, or to ensure their good luck by "ruling the planets," for which purpose as much silver as the dupe can command is to be paid to the fortune-teller, or by other impostors who pretend to be able to foretell events by the shuffling of a pack of cards. Fortune-tellers are liable to imprisonment as rogues and vagabonds. Silly women (not by any means wholly of the uneducated classes) are mostly the dupes.

FORUM, *for'-um* (Lat., *forum*, a market or open space), the name given to an open space in Roman cities generally surrounded by a covered colonnade, that formed an ambulatory, and buildings of various kinds, such as temples, courts of law, prisons, granaries, &c. In the later period of the empire, when Rome had attained the summit of its glory, there were nineteen *fora* within its limits, which were divided into two classes, some being especially set apart for

public meetings and the proceedings of the law courts, while others were devoted to business purposes and the requirements of trade. The Forum Romanum, the first that was erected in Rome, served equally for the purposes of trade and all public meetings, as well as for the administration of justice by the consuls, decemvirs, and other magistrates of Rome. This forum was subsequently distinguished for its magnificence; the shops were removed, and many temples of the heathen gods, the senate-house, and the comitium, were erected in its immediate vicinity, and in communication with it. It was also adorned with arches, statues, and pulpits, from which public meetings were addressed, and which were called *rostra*, from being surrounded with the brazen beaks (*rostra*), or ornaments of the prows of the ships of war that had been captured by the Roman triremes. Exhibitions of gladiators were often shown in the forum. The Roman forum corresponded to the *agora* of the Greeks, and no Roman city or colony was without this important centre for the transaction of business and public affairs.

FOSSE, OR **FOSS**, *fos* (Lat., *fossa*, from *fodio*, I dig), a ditch, generally filled with water, encircling the rampart of a fort, lying between the scarp and the counter-scarp.

FOUGASS, *fou-gas'* (Fr., *fougasse*), in Military language, the name of a small mine, made by sinking a pit about ten or twelve feet below the surface of the ground, and putting a wooden case at the bottom, containing several pounds of powder, and occasionally some shells, which are exploded by means of the electric spark and by detonating powder.

FOUNTAIN, *foun'-tan* (Lat., *fons*; Fr., *fontaine*), a spring or source of water rising above the earth in a jet or jets, forced up by either natural or artificial means. Artificial fountains flow from vases, statues, or other picturesque pieces of sculpture. Among the ancients, fountains were generally esteemed sacred, and sacrifices and libations were made in their honour. Horace, in his odes, gives a tribute of praise to one at Rome distinguished by the appellation of *Fons Blandusie*. Many of the Greek cities were adorned with these beautiful and necessary objects of art, Corinth especially. In the ruins of Pompeii and Herculaneum, fountains were seen in nearly every situation; and, from the number of leaden pipes also found, it seems that every house was provided with one. In modern Rome, this practice of having fountains distributed through the city is kept up in the present day: and those of Trevi and the Pauline, at San Pietro in Montorio, are splendid piles of architecture, adorned with imposing pieces of sculpture. In Paris, the fountains of Versailles and St. Cloud used to be considered the finest in the world; but since the erection in England of the system of fountains at the Crystal Palace, they have been fully rivalled. (See DRINKING FOUNTAINS.)

"FOUR MASTERS."—A name given to four Irish chroniclers, Michael, Conary, O'Clery, and O'Mulconry, who compiled from original documents the annals of Ireland from 2242 B.C. to 1616 A.D. A translation, edited by Dr. O'Donovan, was published at Dublin in 1851.

FOURTH, in Music, a distance comprising three diatonic intervals. There are three kinds

of fourths—viz., the *diminished fourth*, composed of a whole tone and two semitones; the *perfect fourth*, consisting of two whole tones and a semitone; and the *extreme sharp*, or *superfluous fourth*, consisting of three whole tones.

FOX-HUNTING. (See HUNTING.)

FRANK, *frank*, a name given by the Greeks, Turks, Arabs, and other Eastern nations, to a Christian. It probably originated at the time of the Crusades, in which the French particularly distinguished themselves. This was also the name of a powerful German tribe that about the 3rd century of the Christian era were found inhabiting the lower Rhine, and which afterwards overthrew the Roman empire in the north-east of Gaul; whence, in Germany, that country is termed *Frankreich*—i.e., the kingdom of the Franks. About the middle of the 4th century they became divided into two groups—the Salic and the Ripuaric Franks, the former inhabiting the Low Countries, the latter extending themselves up the Rhine as far as the Maine. Each group had its own laws, which, however, did not differ much from each other, and are known as the *Lex Salica* and the *Lex Ripuariorum*.

FRANKENSTEIN, *frank'-en-stine*.—The name of a romance of a very exciting character, written by Mrs. Shelley, wife of the poet and daughter of William Godwin and Mary Wollstonecraft. In his "Life of Lord Byron," Moore says, referring to his residence at Diodati in 1816:—"During a week of rain at this time, having amused themselves with reading German ghost-stories, they agreed at last to write something in imitation of them. 'You and I,' said Lord Byron to Mrs. Shelley, 'will publish ours together.' He then began the tale of the 'Vampire'; and, having the whole arranged in his head, repeated to them a sketch of the story one evening; but, from the narration being in prose, made but little progress in filling up his outline. The most remarkable result, indeed, of the story-telling compact, was Mrs. Shelley's wild and powerful romance of 'Frankenstein,' one of those original conceptions that take hold of the public mind at once and for ever." Dr Polidori, a young Italian physician, at that time intimate with Byron, remembered Byron's sketch of his story, and expanded it into a story, published afterwards in France, and accepted as an authentic production of Byron's. Mrs. Shelley's romance was published in 1816, and at once attracted extraordinary attention. A German student is supposed by his scientific art to have constructed a monstrous man, and infused life into the figure, which is afterwards an object of perpetual terror to him.

"**FRASER'S MAGAZINE**,"—A monthly magazine established in 1830, by Mr. Fraser, a London publisher, in some respects as a rival to the famous *Blackwood* of Edinburgh. It soon attained a high position. Among the contributors, at different periods, were Dr. Maginn (for a long time editor), "Father Prout" (Mr. Mahoney), Carlyle, whose "Sartus Resartus" appeared in its pages, and Thackeray, who, under the signature of "Michael Angelo Titmarsh," contributed some of his most characteristic humorous works. MacIise, afterwards Royal Academician, etched portraits of literary and political celebrities. At a later period, Froude, the historian and W. Allingham, the poet, held the editorial position.

The last number published was that for October, 1882.

FREEBOOTER, *fred'-boot-er* (Ger., *frei-beuter*; Fr., *flibustier*).—A name given to a class of adventurers who have existed at different times and in different countries, but more particularly in the New Continent, and who were usually remarkable for their daring and intrepidity. (See BUCCANEERS, FLIBUSTERS.)

FRENCH HORN, *frensh horn*, a wind instrument, consisting of a long tube twisted into several circular folds, gradually increasing in size from the mouth-piece to the bell, or end at which the sound issues. As it is not provided with holes, like the flute, its sounds are varied by the lips of the player, the greater or lesser pressure of his breath, and the insertion of the hand into the bell, or end from which the sound issues; it may also be tuned to a variety of keys, by means of *crooks* and *shanks*, or movable pieces added to, or removed from, the top of the tube, as required.

FRENCH LANGUAGE AND LITERATURE.—The origin of the French language is to be traced to three distinct sources—the Celtic, the Latin, and the German. Of the Celtic, or earliest of these, the language of the country prior to the Roman invasion, comparatively few traces are to be found in that of the present day. When the country came under the dominion of the Romans, the Latin being the language of the Conquerors, a corrupt dialect of it, known as the *lingua Romana rustica*, became the language of the people generally. On the overthrow of the Western Roman empire, this language became corrupted by the admixture of words and expressions from the Burgundian, Visigothic, Frankish, and other barbaric tongues. In the 7th century, two forms of speech prevailed in the country—a corrupt dialect of the *lingua Romana*, and a form of German known as the *lingua Francisca* or *Theotisca*, or the *Tudesque*. The latter prevailed in the north and east parts of the country, and the former was spoken south of the Loire. The council of Tours (813) recommended the use of both the Rustic and Tudesque versions of the Homilies. In course of time these two became in some measure blended, the Latin element remaining the more prominent; and this corrupt language was called the Romance. It was divided into two branches which took their names from their respective modes of expressing the word *yes*. The Visigoths and Burgundians south of the Loire said *oc* (Latin *ac*, German *auch*, also) for *yes*, while the Franks and Normans to the north said *oil*; and hence the dialect of the former was called *la langue d'oc*, and of the latter *la langue d'oïl*; the former of these, which came to receive the name of Provençal, from the kingdom of Provence, which at one time included the whole of the south of France, was characterised rather by a modification of Latin words, than by the admixture of foreign words and idioms. Though much changed, it is still the dialect of the common people in Provence, Languedoc (the name taken from the phrase), Catalonia, Valencia, Majorca, Minorca, and Sardinia. Less troubled by wars, and of a more gay and sprightly turn of mind, the language of the southerners speedily became polished, and its glory was spread over Europe by the labours of the Troubadours. The dialect of northern France had a much greater

admixture of the Germanic element than the south, which was still farther augmented by the establishment of the Normans in that part, in the beginning of the 10th century. After the commencement of the Crusades, both languages approached towards a fusion. The cruel persecution of the Albigenses checked the development of the Provençal language; and the extending of the political rule of the north southwards, brought with it the language of that people. The real French language began to be developed about the time of the Conquest of Constantinople by the French Crusaders, at the beginning of the 13th century. Froissart's "Chronicles," of the 14th century, is the earliest work in genuine French—French which is quite intelligible to the student of the present day. Francis I. greatly encouraged the development of the French, and substituted that language for Latin in public transactions. Rabelais greatly enriched it; Ronsard and Du Bellay, Amyot and Montaigne, and others developed it still further. The religious reform, political troubles, the influence of the Italian wars and queens, modified it greatly. The *Académie Française*, established by Richelieu for the regulation of the national language (1635), the influence of the court, the labours of the Port Royalists, especially Pascal (1656), and a galaxy of great writers, purified, augmented, and diffused it more and more. It was first used as a diplomatic language at the conferences of Nimeguen (1678). The French is the most generally known of all languages among civilized nations, and, throughout Europe, is the language of diplomacy.

Literature.—The earliest literature of France is that of the Troubadours and Trouvères. The former flourished most during the 11th and 12th centuries. Their productions were chiefly short lyrical effusions on love or matters of trifling import; and they exhibit little play of the imagination, little depth of emotion, and very slight traces of learning. The Trouvères, on the other hand, in their narrative poems known as *Chansons de geste*, and written in the energetic *langue d'oïl*, treated of great national subjects, and celebrated the heroic deeds of illustrious kings and knights. Some of their compositions, especially the earlier, have a striking character of grandeur, which may sometimes be not unfavourably compared with that of the ancient epic poems. These *chansons de geste*, also called *romances*, are very numerous, and have been classified into three cycles, bearing respectively the names of Charlemagne, King Arthur, and Alexander. These were succeeded by satirical and allegorical poems of equally vast proportions, some of which enjoyed unparalleled popularity; such as the "Roman de Renard," and the "Roman de la Rose." The former is the well-known story of "Reynard the Fox," the "Reinecke der Fuchs" of the Germans; the latter is a poem of 22,000 verses, 4,150 of which were written by Guillaume de Lorris in the early part of the 13th century; and the work was completed fifty years later, by Jean de Meun. This is, perhaps, the most celebrated French production of the Middle Ages. It is a kind of didactic allegorical poem, which professes to teach the art of love, and embraces the most varied subjects. It contains a great deal of learned lore, scholastic subtleties, and scraps of ancient history, freely mingled with abstractions and allegories. Another kind of poetry of this period is the *fabliaux*, or tales, which are partly of Oriental origin, and were introduced by the Crusaders into Europe. (See *FABLIAUX*.) Songs were not neglected; and those of the illustrious Abélard, in the 12th century, enjoyed a wide popularity. The progress of prose was slower than that of poetry; but the 13th century presents two specimens, showing that it had already acquired a degree of power and polish. These are the "Chronicle of the Conquest of Constantinople," by Villehardouin (1207), and the interesting and simple Life of St. Louis, written by Joinville. The whole of the literature of the 14th century culminates

in Froissart's "Chronicles," which present the liveliest pictures of society and manners during that period of war and gallant enterprise. The greatest writer of the 15th century, also a chronicler like Froissart, is Philippe de Comines, who in his "Mémoires" presents a striking delineation of the characters of Louis XI. and his contemporaries. To the same period belong two of France's distinguished poets, who, strange to say, present a striking contrast to each other in their outward circumstances, the one the princely Duke Charles of Orleans, the other the low-bred and lawless Villon, a strange compound of villainy and inspiration. A new epoch in the history of French literature begins with the reign of Francis I. (1515). The study of Greek and Roman authors now began to prevail in France; and writers, dazzled by the hitherto unknown beauties of the classical writers, despised the works of their forefathers, and attached themselves to the imitation of the ancients. Thus arose the so-called modern classical school; while that which, instead of imitating the ancients, derived its materials from national elements, has been designated by the appellation of Romantic. Tolerably free from the classic element are the works of Clement Marot, the greatest French poet of the reign of Francis I.; while the leader of the new or classical school was Ronsard, an author long extolled far above his merits. A host of other writers characterize this century, chief among whom are Rabelais and Montaigne. In the 17th century Malherbe appeared as the reformer, or rather the regulator, of poetry, a man of fastidious taste but meagre imagination, who despised the artistic luxuriance of Ronsard, introducing in its stead a style of grammatical correctness and dry elegance, which sometimes reached pomposity. Balzac devoted his attention to the improvement of prose, and his semi-philosophical works, especially his Epistles, were valuable at the time as models of careful and harmonious style. Such were also the frivolous but witty letters of his friend Voiture. In 1634 the French Academy was instituted, under the auspices of Cardinal Richelieu, "to establish certain rules for the French language, and to make it not only elegant, but capable of treating all matters of art and science." Three writers of this period enriched French literature with important works, and did much towards the improvement of its language. Pierre Corneille brought tragedy to a degree of grandeur which has not been surpassed; "Le Cid," "Horace," "Cinna," and "Polynekte," being among the best of his works. Descartes, in his "Discours sur la Méthode," showed that the French language was equal to the highest philosophical subjects; and Pascal, in his "Lettres Provinciales," in which comic pleasantry and vehement eloquence are happily blended, first formed a standard for French prose. Such was the opening of the splendid literary epoch which is generally styled the Age of Louis XIV., and which is distinguished by a galaxy of superior intellects, who, under the royal patronage, applied themselves to perfecting every branch of literature. The pulpit is set forth by the eloquence of such men as Bossuet, Flechier, Bourdaloue, and Massillon. Tragedy lost little of its power in the hands of Racine, whose "Andromaque," "Iphigénie," and "Phédre," remind one of the productions of ancient Greece; while comedy reached its highest pitch with Molière, whose masterpieces, "Le Misanthrope," "Tartuffe," "L'Avare," and "Les Femmes Savantes," are very humorous creations. In his Fables, La Fontaine showed himself the greatest master of that kind of composition in modern times. Didactic poetry was represented by Boileau, whose works are remarkable for symmetry and good sense, but are entirely deficient in poetical enthusiasm. Moral philosophy was cultivated by Malebranche, by Bossuet, by Fénelon, and by Pascal; La Rochefoucauld and La Bruyère were other conspicuous authors of their time. In the field of history, we also meet with Bossuet, as the author of "Discours sur l'Histoire universelle," and "Histoire des Variations des Eglises Protestantes." Here, too, we have Mézeray, author of the "Histoire de France," and Fleury, author of "Histoire de l'Eglise." In memoirs and letters, there are the personal "Mémoires" of Cardinal de Retz; Hamilton's "Mémoires du Comte de Grammont;" and the interesting letters of Madame de Sévigné to her daughter and friends. The 17th century had been, at least professedly, a religious one; but the 18th was eminently an age of scepticism.

and infidelity. Literature now became a means of conveying bold opinions, or assailing time-honoured creeds and institutions. The persons who exercised the chief sway during this period, and who exerted a powerful influence upon their contemporaries, were Montesquieu, Voltaire, J. J. Rousseau, and Buffon. Voltaire, the true personation of his age in disposition, as well as in talents, was, for half a century, the leader of public opinion in France. Diderot and D'Alembert founded the "Encyclopédie," a vast review of human knowledge, but always hostile to religion. Helvetius, in his treatise "De l'Esprit;" D'Holbach, in his "Système de la Nature;" and Lamettrie, by his "L'Homme Machine" and "La Vie Heureuse de Sénèque," far exceeded the encyclopedists in the destructive tendency of their doctrines. Among the few defenders of revealed religion during the period was J. Vernet. Among the metaphysical writers, the first place is due to Condillac, followed by Vauvenargues, Condorcet, and Bonnet of Geneva, all of whom remained on the side of moderation, and gave little support to the tendencies of the age. One of the most learned historians of that period was Mably. Charles de Brosses, Goguet, Barthélemy, Raynal, De Mehegan, Velley, are also names of note in this department. The mathematical and physical sciences made great progress in France during the 18th century; as witness the names of D'Alembert, Lagrange, Lalande, Lacaille, Maupeituis, Clairaut, Lemonnier, Condamine, and others. In natural history, we have Buffon and Charles Bonnet; Brisson, Vieq d'Azyr, Jussieu, in botany; and Saussure in geology. In poetry, the drama, and general literature, we may mention the names of Crebillon and Ducis, both tragic poets; Le Sage, author of "Gil Blas" and of "Turcaret," perhaps the best comedy after those of Molière; Beaumarchais, author of the "Barbier de Séville;" Bernardin de St. Pierre, author of "Paul et Virginie;" St. Simon, whose "Mémoires" have gained a deserved celebrity; Marmontel, the author of "Bélisaire," and Lebrun, the lyric poet. The period of the Revolution was by no means favourable to literature, and little more so was that of the Empire which succeeded. Madame de Staël and Châteaubriand were the fore-runners of a revival, which was, perhaps, less owing to their works than to the influence upon public taste of the master-pieces of English and German literature, which found more and more admirers in France. A new romantic school now sprung up; and, through the exertions of many young and original writers, new life was infused into nearly every branch of literature, poetry, history, philosophy, and the drama. An animated controversy was maintained between the supporters of reform and the adherents of the classical school; and the contest reached its utmost fury, when Frédéric Soulié, Alexandre Dumas, Victor Hugo, Alfred de Vigny, and others, produced on the stage dramas framed according to their ideas of the Shakespearian style. It was only after several years that the younger body of combatants came out victorious. Novels which, during the excitement of this contest, had been scarcely noticed, became the rage soon after it was settled. George Sand (Madame Dudevant), one of the most elegant writers of her country, established her character by her "Indiana," which appeared in 1832; and has since published many popular works. Alexandre Dumas, the inexhaustible storyteller, has won immense popularity by his works, "Trois Mousquetaires," "Le Comte de Monte Christo," and numerous other works. Eugène Sue also obtained great popularity from his works "Les Mystères de Paris," and "Le Juif Errant," which depict in glaring colours the miseries and depravities of society. Among other distinguished writers, we may mention Honoré de Balzac, Frédéric Soulié, Alphonse Karr, Alfred de Musset, Prosper Mérimée, Madame Emile de Girardin, Théophile Gautier, Jules Sandeau, and Emile Souvestre. A new generation of story-tellers has been rising within the last few years, who, though their powers are scarcely to be compared with those of their predecessors, are nevertheless not devoid of talent. Some of them belong to what they themselves call the "realist school;" they are Henri Murger, Alexandre Dumas fils, Champfleury, Ernest Feydeau, Gustave, Faubert, Octave Feuillet, and Edmond About. Poetry is far from being as popular in France as the novel, and the country has produced few

great poets during the present century. The four greatest poets are Béranger, Victor Hugo, Lamartine, and Alfred de Musset; besides whom, Casimir Delavigne, Auguste Barbier, and Victor de la Prade, are the only names requiring to be mentioned. History is, undoubtedly, the most successful branch of modern French literature. A larger number of valuable historical works has been published within the last thirty-five years than during any other equal period of its history; and the taste for such performances is still on the increase. M. Guizot, the great philosophical expounder of social institutions, and Augustin Thierry, the artistic historian of the Middle Ages, stand foremost among the promoters of this movement. Sismondi, Michelet, and Henri Martin, have each devoted their efforts to a full recital of the general history of France; while De Barante, after giving, in his "Histoire des Ducs de Bourgogne" (1824), an attractive specimen of purely narrative history, has recently published histories of the Convention and the Directory, in which his monarchical tendencies are strongly apparent. The revolutionary period has engaged the attention of many historians; among whom the most prominent are Thiers, Mignet, Michelet, and Louis Blanc. Lamartine also figures among the historians, having produced several works of that class, which, however, are more remarkable for their showy language than for their accuracy or research. The elegant and accomplished Villemain, although better known in other fields of literature, has also produced several historical works; as his "Histoire de Cromwell," and his "Souvenirs Contemporains." Archaeology has not been neglected; as is evinced by the works of Letronne, Raoul Rochette, and Beulé. Champollion, Sylvestre de Sacy, Ernest Renan, and Abel de Rémusat have thrown great light upon Egyptian and Oriental languages and literature. In philosophy, Victor Cousin and his disciples have, under the name of Eclecticism, brought back the materialism of the preceding age to spiritualist principles. Jouffroy, Damiron, and Jules Simon are among those who have contributed to this result. As writers on politics and political economy, are Joseph de Maistre, Bonald, Ballanche, Lamennais, Michel Chevalier, De Tocqueville, and Laferrrière; while as socialists, figure the names of St. Simon, Fourier, and Pierre Leroux. Auguste Comte, in his "Cours de Philosophie positive," offers a connected system of philosophy, embodying ideas derived from Hegel and various of the French Socialists. The various branches, of natural philosophy boast of many original and powerful writers. In natural history and physiology, are Cuvier, Geoffroy St. Hilaire, Isidore St. Hilaire, Milne-Edwards, Claude Bernard, and others; mineralogy boasts of Elie de Beaumont, Bendaud, and Dufrenoy; and chemistry and physics, of Thénard and Dumas, Gay-Lussac and Despretz. In medical literature, are the names of Bichat, Broussais, Corvisart, Magendie, Trousseau, and many others. The mathematical sciences have distinguished representatives in Lagrange, Laplace, Ampère, Biot, and Arago. The French essayists and literary critics are legion, and some of them have attained great eminence; among whom we may mention Sylvestre de Sacy, St. Marc Girardin, Philartès Chasles, Ernest Renan, Hippolyte Rigaud, Gustave Planche, Ste. Beuve, Charles de Rémusat, Albert de Broglie, Edmond About, Théophile Gautier, Leon Delaborde, Taine, and Jules Janin, the dramatic feuilletonist.

French Drama.—France has boasted that when the classic drama was banished from every stage in Europe, it found a home in Paris; and yet her drama, like those of other nations, was, during the 16th and a great part of the 17th century, borrowed from Spain. As the English owe the excellence of their stage to Shakespeare, so France is equally indebted to Corneille. Racine occupies a very eminent position as a tragic writer, and some of Voltaire's tragedies still keep the stage. It was at this period that the classical fetters of the three unities were imposed upon French dramatic poets. Molière, the founder of French comedy, followed the path marked out by Menander, and has closely copied some pieces from the Latin stage. This comedy of manners rather than of nature was overturned by the "Figaro" of Beaumarchais—a production in which incident, intrigue, characters in high and low life, lively dialogue, and political satire, were so craftily intermingled, the whole being with a

strong tone of licentiousness, that it was received by the Parisian public with an almost frantic enthusiasm. Of modern French dramatists, the foremost place must be given to Victor Hugo; Scribe, Dumas (*fils*), Sardou, are also dramatists of eminent ability.

FRENZY, *fren'-ze* (Fr., *frénésie*; Gr., *phrenitis*, from *phren*, mind), denotes madness, distraction, rage, or any violent agitation of the mind approaching to distraction.

FREQUENTATIVE, *fre-kwen'-ta-tiv* (Lat.), in Grammar, is a term applied to certain verbs, which denote the frequent repetition of an action.

FRESCO PAINTING, *fres'-ko* (Ital., *fresco*, fresh), the art of painting in water-colours on the surface of a wall that has just been plastered, while the plaster is still in a moist condition. The Romans were in the habit of colouring their walls while the plaster was still wet, to produce a ground of one uniform tint; and they added decorating in distemper colours when the surface was perfectly dry; but fresco-painting, properly so called, cannot be considered to have been introduced earlier than the close of the 14th century, when the practice of painting designs on the damp surface of freshly-plastered walls was adopted for the decoration of cathedrals and churches at Florence, Orvieto, Pisa, and other towns in Northern Italy. Fresco painting was subsequently practised by all the Italian painters of celebrity—Michael Angelo, Raffaele, and others having left exquisite specimens of their work in this branch of art in the palace of the Vatican and many of the churches of Rome. Fresco painting fell into disuse about the end of the 16th century, and remained in abeyance until some German painters revived the art in the decoration of a villa at Rome about 1816; and Louis of Bavaria subsequently caused many of the magnificent buildings that were erected at Munich during his reign to be adorned in this manner. It may be executed on any walls covered with a coating of plaster. The lime used for making the plaster, especially that of which the *intonaco*, or ground on which the painting is executed, is composed, should be as pure as possible, approaching as nearly as may be a pure carbonate of lime, without any admixture of iron or other mineral substances. The best limestone for the purpose found in England is that which is quarried on Durdham Down, near Bristol. As fresco paintings cover a large superficial area, it is necessary to execute them at different times in several pieces, as much of the *intonaco* or surface being spread at one time as the painter can conveniently colour before it begins to harden; and it is contrived, if possible, to let the joint between the work of one day and that of another correspond with the outline of a figure, or with that of the drapery that is thrown around it. Before painting, the wall must be thoroughly soaked with water, and two very thin coats of the *intonaco* spread over it, both consisting of prepared lime and very fine river-sand, but the sand preponderating in the mixture used for the first coat. The design, of which the painter has a finished sketch already prepared, is then traced with a hard blunt tool on the *intonaco*, from cartoons laid on it, as soon as it is hard enough to withstand the action of the brush and receive the colour. The outline having been thus produced, the colouring is applied in washes, half-an-hour, or rather less, being allowed to elapse between the application

of the successive washes, when two or three are necessary to produce a proper depth of tint. Roundness is given to figures, and the proper effect of light and shade is produced by cross-hatching; and the whole is toned by washes and glazes, all of which must be done while the plaster is still moist. The colours used are prepared from coloured earths and a few minerals, such as the oxides of iron and cobalt. Vegetable colours, or those made from animal matter, such as gamboge and Prussian blue, cannot be used, as lime has an injurious effect upon them. Frescoes may be cleaned with bread or sponged with water when the surface appears dirty; and there is a process by which they may be detached from the wall on which they are painted, and transferred to canvas.

Fresco Secco, or dry fresco, is an inferior kind of fresco, executed in water colours on a dry wall. It has been recently much improved by the invention of "water-glass" as a preservative. (See STEREOCHROMIC PAINTING.)

FRET.—A device in Heraldry, representing two bars crossing the shield diagonally, forming a crown, and interlaced with a diamond-shaped figure. When several pieces are represented, forming a sort of lattice-work, the shield is described as "fretting."

FRETS, *frets* (Ang.-Sax.), in Music, are short pieces of wire placed across the finger-boards of stringed instruments under the strings, to mark those portions of them which are to be pressed on the finger-board for the purpose of producing certain sounds.

FRIEZE, *frecze* (Fr.), in Architecture, that portion of the entablature which is between the architrave and the cornice. (See ENTABLATURE.) The term frieze was also applied to a broad band of sculpture, in low relief, that was frequently placed round the *cella* of a Grecian temple, immediately under the ceiling of the portico, and completely surrounding the exterior. In modern domestic architecture, a frieze is frequently introduced immediately below the cornice of an apartment.

FRISIAN LANGUAGE AND LITERATURE, *friz'-shan*.—The Frisians were an ancient Germanic people, who inhabited the extreme north-west of Germany, between the mouths of the Rhine and Ems, and were subjected to the Roman power under Drusus. The language of the Frisians is intermediate between the Anglo-Saxon and the Old Norse. Our knowledge of the Old Frisian is derived from certain collections of laws; as the "Asegabuch," composed about 1200; the "Brokmerbrief," in the 13th century; the "Epsinger Domen," about 1300, and some others. (See Richthofen's *Fries. Rechtsquellen*, Gött., 1840.) The modern Frisian is now spoken only in few districts, and even in these only by the peasantry; not being used either in the churches or schools. It is further divided into a number of local dialects. Attempts have recently been made to revive an interest in the Frisian, and various specimens of its earlier literature have been published. A Dictionary of the old Frisian, by Richthofen, was published in 1840.

FRITHJOF'S SAGA, *frith'-yofs sa'-ga*, an Icelandic myth, written down, apparently, about the end of the 13th century, but evidently belonging to a much earlier period. It narrates the adventures of the Norwegian hero Frithjof (properly Fridthjof, *i.e.*, peacestealer), and his love for the beautiful Ingebjörg, which some at-

tribute to the 8th century, others to a much earlier period. This saga has been rendered famous chiefly from being selected by the poet Tegnér as the subject of a beautiful poem of the same name, which has been repeatedly translated into English.

FROGS.—Stripes of braid or lace on the front of military uniforms.

FROISSART'S CHRONICLES, *frwois-sar*.—A work descriptive of the occurrences of his time, written by Jean Froissart, a French poet and historian, who visited England and Italy, and was acquainted with most of the leading personages of the time. The chronicles extend over the years 1326-1400, are most picturesque and vivacious, and have afforded delight to readers for nearly five centuries. They have aided the historian, the romancer, and the poet. There are two English versions: one, produced about 1525, by Lord Berners, and a modern one by Thomas Johnes. In the library at Breslau is a beautiful manuscript of the chronicles executed in 1468.

FRONTISPIECE, *front'-is-peese* (Lat., *frons*, front; *inspicio*, I look upon), a term used to denote the engraving or ornamental page which is placed in the beginning of a book. In Architecture, *frontispiece* signifies the principal face or front of a building, and the decorated entrance to the same.

FRUCTIDOR. (See CALENDAR.)

FUGUE, *fuge* (Lat., *fuga*, a flight or chase), a term signifying a musical composition, vocal or instrumental, or both, in which a determined succession of notes, called the subject, passes successively, and alternately, from one part to the other, according to certain rules of harmony and modulation. There are four kinds of fugue—viz: the "strict fugue," in which the subject is given out by one part and answered by another, the subject being again repeated in the third part; the "free fugue," in which the composer is not so much restrained, but is allowed to introduce passages not closely related to the theme; the "double fugue, in which there are two subjects occasionally intermingled, and moving together; and the "inverted fugue," in which, as its name implies, the theme is inverted.

FUNDAMENTAL, *fun-da-men-tal* (Lat., *fundum*, the bottom of a thing), in Music, is a term applicable to either a chord or to a note; to the former, when its lowest component part is the note on which the harmony is founded; and to the latter, when it is both the lowest constituent part of a chord and the note from which the harmony is really and nominally derived.

FUR, in Heraldry, there are various modes of representing furs on shields, the chief being *ermine*, black spots on a white field, or *rice versé*, or gold spots on a white field.

FURLOUGH, *fur'-lo* (Du., *verlof*), the leave of absence granted to a soldier to absent himself from duty.

FURNITURE, *fur'-ni-ture*.—A term applied in various ways to articles used in fitting up, or supplying necessary accommodation; but more generally to household goods and chattels, as chairs, tables, couches, cabinets, bedsteads, looking-glasses, &c. The fundamental idea, that of utility, being observed, there is abundant opportunity for the exercise of taste in design and adaptation to the size and decoration of the rooms. In very early times, great ingenuity and

frequently artistic skill was displayed in chairs and couches; and the use of Gothic architecture led to an adaptation of some of its leading principles to the furniture of large edifices, especially ecclesiastical. One writer on the subject says: "A history of furniture would be in great measure a history of the progress of the human race. Perhaps the rude cave-dwellers, whose only tools and weapons were a few roughly-chipped flints, were content with the grassy turf or white sand as a seat by day and a couch by night. But the primitive man early aspired to render his lot less comfortable. At the very dawn of authentic history we find races widely differing in other matters yet at one with regard to the furnishing of their dwellings with articles of necessity or of luxury. There is not an age in the chronicles of man's existence, nor a land of his abode now visited, where substantially the same wants as to household furniture are not met, and where art does not seek to give beauty to articles designed to meet this demand." The Renaissance, the Louis Quatorze, the Queen Anne periods all originated special fashions in furniture; and in this country the Georgian period was discreditably distinguished by the manufacture of heavy and usually tasteless articles. Lighter and fragile articles succeeded them, and now there is a tendency to revert to what is known as the Queen Anne style. Speaking of the modern revival of the forms adopted by Chippendale, and Sheraton, and other cabinet makers of the "Queen Anne" period, a clever writer, Mrs. Spofford, says: "Articles in this style may be characterised as severely square with sharp corners, standing on feet usually straight, but sometimes slightly bending outward, built in an upright and downright fashion, with no pretence and no sham, the *motif* being solidity and compactness. The panel-work is small, square, and in multiplicity. When glass is used it is always bevelled plate; a tiny classic balustrade frequently crowns the articles; and they are decorated to the last point with carvings in the face, sometimes of birds, fruits, figures, but usually with conventional treatment, and largely of mere floral suggestions. The Queen Anne style, then, may be summed up as possessing the remarkable simplicity and quietness of old work, together with great picturesqueness and some quaintness. Although straight and square, with right lines and angles, yet it contrives to have a want of formality and a freedom from restraint, and always seems to be enriched with a 'flavour of the past.'" Although this kind of furniture is named after Pope's "Great Anna," it must be by no means supposed that her short reign covers the whole period of the style. On the contrary, the latter preceded Queen Anne, and lasted for long subsequent. It was, in fact, partly only a natural outgrowth from the heavier Jacobean furniture, partly the Dutch influence which accompanied William of Orange, which assisted to form the quaint, piquant style of which we are speaking. The influence of the great exhibitions of the practical arts has been largely felt in the improvement of taste in furniture, and also in the workmanship.

FUSIL, *fu'-zil* (Fr., *fusil*), a kind of firelock similar to the old musket, but lighter and shorter. Some of the light infantry regiments in the British army were armed with this weapon prior to the introduction of the Enfield rifle, from which they acquired the distinctive appellation of fusiliers.

G.

G is the seventh letter in our alphabet, as well as in the Latin and all the other alphabets derived from it; while in the Greek and Oriental alphabets it occupies the third place. It has two sounds—one hard, as in *gay*, *go*; the other soft, as in *gem*, *giant*. It is hard before the vowels, *a*, *o*, *u*, and generally soft before *e* and *i*, but not invariably so, “get” “gilt” “girt” “give” and other words affording exceptions. *G* is liable to many changes in different dialects or languages, as interchanging with *k*, *h*, *y*, *g*, *u*, *w*, *b*, *d*, &c.

In Music, *G* is the fifth note or sound of the natural diatonic scale, corresponding to the *sol* of the French and Italians. *G* flat is the note *G* depressed half a tone; the fifth note introduced in modulating by fourths from the natural or diatonic mode.

GABION, *gai'-be-on* (Ital., *gabbione*), a basket or cylinder made of wicker work, open at both ends, used in the construction of earthworks. These baskets, are 2 feet 9 inches in height, and from 2 to 6 feet in diameter. They are placed on end and filled with earth taken from the ditch dug out in front of the rampart. They add considerably to the strength of the mound, by affording support to the earth that is thrown over and against them. A line of gabions thrown up by troops as a defence after being driven back from a stronger position, is known as a *gabionnade*.

GABLE, *gai'-ul* (Welsh, *gavael*), in Architecture, the name given to the upper part of the end-wall of a building, the sides of which meet in an angle and afford support to the ends of the rafters of the roof. The angle thus formed corresponds to the slope of the roof: it attains the greatest degree of acuteness in Gothic architecture. The gables of the different styles of Gothic architecture were often richly ornamented. In Elizabethan architecture, the outline of the gable was composed of curves and angles variously combined, that known as the ogee gable being the most common. It was often richly ornamented with open stonework. The end of a house terminating in a gable is indifferently called the gable or gable-end of the building.

GAELIC, or ERSE, LANGUAGE AND LITERATURE, *gai'-lik*.—The language spoken by the Highlanders of Scotland is termed by them the Gaelic; but the name frequently given to it by the lowlanders is Erse or Ersh, evidently a corruption of Irish. It is a dialect of that great branch of the Celtic languages termed the Gwyddelian, or Gaelic, and to which belong also the Irish and Manx, or that spoken in the Isle of Man. At the time of the Roman invasion, Celtic was the language generally spoken in Western Europe. The dialects of the Celtic still spoken, besides the three already mentioned, are the Welsh, and the language of Brittany; while the Cornish, another dialect, though not now spoken, is preserved in books. The three dialects, the Irish, the Scotch Gaelic, and the Manx, approach each other so nearly as to form, in fact, but one language, the peculiarities which distinguish them from each other not being sufficiently broad or vital to constitute either of them a distinct language. The differences be-

tween the spoken language of the Scottish Highlanders and the Irish exist partly in the pronunciation, partly in the grammar, and partly in the idioms. In the vocabulary, also, there are considerable differences, as where words now obsolete in Irish are still used in the Scotch Gaelic, and others are used in a different sense. There are also marked differences in the language, as spoken in different parts of the Highlands; and a native of Sutherland has some difficulty in understanding one of the southern districts of Argyle. The Gaelic, which, from a variety of causes, has retained, in a considerable degree, its original purity, is copious, bold, and expressive. It derives no assistance from the languages either of Greece or Rome, from which it differs in its structure and formation. Having affixes and prefixes, it greatly resembles the Hebrew, particularly in the inflections of its nouns and verbs. In Ireland, too, the Gaelic spoken in the different parts varies, and the difference is very marked between that spoken in the north and south parts of the island. The written and cultivated language of the Highlands came to be identical with that of Ireland; but, according to Mr. Skene, we have no reason to conclude, on that account, that there was not a vernacular Gaelic which preserved many of the independent features of a native language, and existed among the people as a spoken dialect. The introduction, however, of the Reformation, in the 16th century, gave rise to a religious literature, which, commencing in the written, or Irish Gaelic, gradually approached nearer and nearer to the spoken dialect of the country, and, accompanied by the preaching of the clergy in the vernacular dialect, tended to preserve and stereotype the language spoken in the Highlands in its native form and idiom. The first printed book in Gaelic was a translation of the form of prayer issued by John Knox, and printed at Edinburgh, 1567. The second was a translation of Calvin's Catechism, published along with an English edition, in 1631. In 1659, the Presbyterian synod of Argyle took up the work of issuing translations into Gaelic of the metrical Psalms and of the Scriptures. In 1690, the first Bible was published for the use of the Highlands. All these works were in Irish orthography and Irish dialect, the last being simply an edition of the Irish version of the Bible, with a short vocabulary. In 1767, the first translation of the New Testament was published in the Scotch dialect; and in 1783, a translation of the Old Testament was undertaken by the Society for Propagating Christian Knowledge in Scotland, and completed in 1787. In 1816, a committee of the best Gaelic scholars was appointed by the General Assembly of the Church of Scotland to effect an improved translation of the Scriptures, the whole being published in 1826. The earliest specimens of Scottish Gaelic poetry are preserved in a collection made in the beginning of the 16th century, by Sir James Macgregor, Vicar of Fortingall and dean of Lismore, and now preserved in the Advocates' Library in Edinburgh. A selection from it was published about twenty years ago, with translations. Some of the poems are in pure Irish, others in pure Scotch Gaelic;

and others in a mixed dialect, in which the one or the other idiom predominates. The MS. is of no small literary value, as throwing some light upon the much controverted subject of Ossian's poems. (See OSSIANIC POEMS.)

GALENISTS, a term applied to those professors of medicine who adhered to the system of Galen, more particularly as opposed to the Chemical school. The former ran much upon multiplying herbs and roots in the same composition, which they usually prescribed in the form of tinctures or extracts; while the latter dealt chiefly with mineral substances, and professed, by means of various chemical processes, or operations, to extract the virtues or essences out of them into a very small compass.

GALLANTRY, *gal'-lan-tre* (Fr., *gаланterie*), denotes bravery, heroism, intrepidity, nobleness, as well as civility, or polite attention to ladies. When the respect for ladies which chivalry cultivated degenerated more and more into frivolous attentions, the word gallantry came also to be used in a less favourable sense; and at length it has come to receive a bad signification, as synonymous with lewdness or debauchery, though always retaining the meaning of bravery.

GALLERY, *gal'-le-re* (Dan., *gallerie*; Fr., *galerie*), a passage open or closed on one side, and having on the other side the doors of a series of apartments which open into it. In this sense it is synonymous with the term "corridor." In ecclesiastical architecture, the name is given to a floor midway between the ground-floor of the building and the roof projecting from the walls on either side, or at the west end, and supported on a series of columns; or, if the span be short, a beam stretching from wall to wall. In theatres, the gallery is the inferior range of seats above the upper boxes. The term is also applied to a large room devoted to the reception of paintings, sculpture, and other works of art; and in Maritime, to the balcony that is generally made outside the stern of men-of-war and vessels of large size.

Gallery, the narrow passage leading to a mine in which powder is deposited, for the purpose of blowing up and destroying any portion of the fortifications of a town or siege-works.

GALLIARD, *gal'-e-yard* (Fr., *gai*, lively).—A favourite dance in old times in France and England. The tune was brisk and lively.

GALLICISM, *gal'-le-sizm* (Lat., from *Gallia*, France), in Literature, is applied to any phrase or mode of speech used in our language, but modelled after the French.

GAMBIT, *gam'-bit*, a word derived from an old Italian phrase, used to signify the tripping up of an adversary in wrestling. It is applied in the game of chess to the method of opening the game. There are several gambits known to players by specific names.

GAMES, *gaimz* (Sax., *gaman*, diversion, sport, pastime), a term applied to certain bodily exercises and mental recreations practised as a relaxation from business or study, or employed as a mode of passing the time. They are divided naturally into two classes, mental and physical, but more definitely they are distinguished as games of chance, games of skill, and mixed games. In the first class the result does not depend upon the attention and dexterity of the player, but is merely determined by chance;

it includes games played with dice alone, such as hazard, and many of the games played with cards, such as quinzé, vingt-et-un, lansquenét, commerce, loo, &c. The second class comprehends those games which, when once begun, are independent of chance, and are gained by the superior skill and experience of one party. In the third class the games are generally decided by chance where the players are equal, but otherwise depend much for their event on the skill and caution of the players.

GAMES, PUBLIC, OF ANTIQUITY, were contests and spectacles of varied kinds celebrated by the ancients, which, in the earlier ages, were connected with religious ceremonies. Among the Grecian games, the most celebrated were the Olympic, the Pythian, the Nemean, and the Isthmian. (See VARIOUS HEADINGS.) The amusements in the Roman Circus did not differ materially from those which were celebrated in the games of ancient Greece. The *theriomachia*, or beast-fight, was a favourite species of entertainment among them; and the men employed in this barbarous amusement, in which men fought with wild beasts, were called *bestiarii*. (See *BESTIARI*.) There is no doubt that the athletic games of the ancients not only improved the physical development of the people, but tended directly to advance their intellectual and moral culture. The early and long training by which they were preceded, and the exercises through which the child, the youth, and the man were conducted by successive stages, ultimated at length in that union of beauty and strength in which physical perfection consists, and in which the ancient Greeks surpassed every other known nation.

GAMUT, *gam'-ut*, a term applied to the table or scale invented by Guido d'Arrezzo, from his having adopted the *gamma*, or third letter of the Greek alphabet, as a sign for its lowest note, which was one note below the lowest tone of the ancients. It consisted of twenty notes—viz., two octaves and a major sixth. In modern music, the term *gamut* signifies the diatonic scale, and is occasionally applied to the note G below the bass clef.

GARDANT, *gard'-ant*, in Heraldry, a term applied to the representation of an animal, full-faced and looking forward.

GARGOYLE, OR **GURGOYLE**, *gar'-goyl* (Fr., *gargouille*).—The name given to an ornamental spout projecting below the battlements of a tower or the parapet of a wall, through which the rain that falls on the roof is discharged at a little distance beyond the face of the wall. The gargoyle forms a striking feature in the Early English and Decorated English styles, being frequently in the form of a dragon, or lion, or some heraldic monster, and sometimes a grotesque representation of the human face and figure. It was introduced to mask the unsightly appearance of a piece of leaden pipe sticking out of the wall, the pipe being passed through a block of stone, which was subsequently carved into a form corresponding to the general character of the architecture of the building.

GARRISON, *gar'-re-son* (Fr., *garnison*, from the low Latin *garnisio*, ammunition, military stores), a term applied to a body of troops stationed in any town or fortified place, either to defend the position against an enemy, to keep

the inhabitants under subjection, or merely to be subsisted. By military writers, the term garrison is generally applied to a fort or fortress, to the body of troops or guard placed in a citadel, or to any troop of soldiers quartered in a town.

GASCONNADE, *gas-con-naid'* (Fr.), is a term used in the French language to denote a habit of boasting, or speaking beyond the truth in conversation. The name is derived from the province of Gascony, the inhabitants of that part having the character of being addicted to this vice.

GASTRONOMY, *gas-tron'-o-me* (*gaster*, the stomach, and *nomos*, law), may be strictly defined to be the science of eating and drinking, or, in short, the physiology of taste in food. It is the science of the epicure and gourmand, not of the practical cook. Lucullus and Apicius, among the ancients, and Brillat-Savarin, among the moderns, are the most renowned writers on the subject.

GATEWAY, *gait'-way* (Ang.-Sax.).—The gateways, or gatehouses, of the Middle Ages were most imposing structures. They used to be erected over the principal entrances of the precincts of religious establishments, colleges, and other buildings, and sometimes also in the courts of private houses, and those before castles and other fortifications. In military edifices, the entrance usually consisted of a single archway, with a strong door, large enough to admit carriages, and portcullis at each end, with a vaulted ceiling pierced with holes, through which missiles might be rained down on an enemy. The sides of the gateway were generally flanked with large projecting towers pierced with loopholes, and the upper part terminated in a series of machicolations and a battlemented parapet. In civil edifices, the gateway admitted of much greater diversity of form. Sometimes it was formed of a single square tower, with the front ornamented; or it was extended to a considerable breadth, as at Battle Abbey, in Sussex. The gateways of religious houses had frequently a chapel attached to them. Examples of them may be seen in most of our old cathedral towns; as at Oxford, Canterbury, &c. Greek and Roman gateways were frequently of great beauty.

GAVOTTE, *ga-vot'* (Fr., *gavotte*), a piece of dance music, consisting of two light lively strains in common time, each being played twice. The first usually contains four or eight bars, and the second eight or twelve, and sometimes more. The first strain should close in the dominant or fifth of the key; for if it has its termination in the tonic or key-note, it is not a *gavot*, but a *rondeau*.

GAZE.—In Heraldry, a beast of the chase, represented as full-faced or *affronté*.

GAZETTE, *ga-zet'* (Ital., *gazetta*), the name of certain newspapers in this country and on the Continent. It is said to be taken from *gazetta*, the name of a Venetian coin worth somewhat less than a farthing, and which was the price of the earliest newspaper published in Venice (1563). According to others, it is derived from *gaza*, a treasure, or *gazza*, a magpie. The first Gazette published in France (under that name) appeared in 1631.

The London Gazette.—The first fourteen numbers of the *London Gazette* were published at Oxford, in 1665,

the court being then resident there on account of the plague in London. It is published under authority of the Government, and appears regularly twice a week, on Tuesdays and Fridays. It contains all proclamations, orders of council, and an account of all matters done by the queen in her official capacity; promotions and appointments to commissions in the army and navy; the appointment of ambassadors, consuls, and other civil officers of the higher ranks; also various matters connected with legal proceedings, notices of bankruptcies, insolvencies and sequestrations, dissolution of partnerships, &c. Notices of intended applications to Parliament for private Acts relating to railways, canals, &c., require to be published in the *Gazette*.

GAZETTEER, *gaz-et-teer'*, is, in other words, a dictionary of geography, a work giving an account of the different places on the face of the earth, under their particular names, in alphabetical order. The first work of this kind with which we are acquainted is that of Stephen of Byzantium, who lived about the beginning of the 6th century. The first modern work of the kind is the "Dictionarium Historico-Geographicum" (Geneva, 1565), by Charles Stephens, with additions by N. Lloyd (Oxford, 1670, and London, 1686). The works of Ferrari, "Lexicon Geographicum," and Bandrand, "Geogr. ordine Literarum dispos" (1632), are full of the strangest errors. Those of Maty (1701), Thomas Corneille (3 vols. folio, 1708), and Savonarola (1713), were based on the former, with additions and corrections. The "Dictionnaire Géographique, Historique, et Critique," of La Martinière (Hague and Amsterdam, 10 vols. folio, 1726; Paris, 6 vols. 1768), superseded all that had gone before it, though it still retained many errors. The "Geographisch-Statistisches Handwörterbuch," by Hassel (2 vols. 1817, with a supplement of 2 vols.), was the most complete and accurate work of its time. The "Edinburgh Gazetteer" (6 vols. 8vo, 1817-22), was a tolerably accurate book. Since that time, however, numerous valuable works of this class have appeared, both in this and in other countries.

GENDER, *jen'-der* (Fr., *gendre*, from Lat., *genus*, race, kind).—In Grammar, is the distinction of nouns according to sex. Nouns denoting the male sex are said to be masculine; those denoting the female sex, feminine; and those which denote neither male nor female are said to be neuter (Lat., *neutris generis*, of neither gender); and hence grammarians have come, somewhat incorrectly, to speak of three genders. In Hebrew, French, Italian, Spanish and Portuguese, there is no neuter, every noun being either masculine or feminine. In English only living beings are described as masculine or feminine. There are, however, certain ideas, as magnitude, strength, vigour, &c., which are considered as characteristic of males; while gentleness, timidity, submission, &c., are regarded as properties of females, which, when they come to be associated with a neuter noun, raise it to the masculine or feminine: thus we speak of the sun as *he*, and of the moon as *she*. Abstract nouns and general terms are also usually regarded as feminines. The masculine and feminine are sometimes denoted by different words, as boy, girl, horse, mare, cock, hen; sometimes by a change in the termination, as count, countess; executor, executrix; songster, songstress; and sometimes by the addition of a word, as cock-sparrow, hen-sparrow, he-goat, she-goat.

GENEALOGY, *je-ne-al'-o-je* (Gr., *gencalōgia*, from *genos*, race, and *logos*, account).—An account

or enumeration of the ancestors or relations of a particular person or family. No nation was more careful to trace and preserve its genealogies than the children of Israel. Their sacred writings contain genealogies which extend through a period of more than 3,500 years, from the creation of Adam to the captivity of Judah, and even after that time. Josephus informs us that he traced his own descent from the tribe of Levi by means of public registers, and that, however dispersed and depressed his nation were, they never neglected to have exact genealogical tables prepared from authentic documents which were kept at Jerusalem. Critical genealogical studies were not begun before the 17th century. Genealogical accounts are not only interesting to persons who feel a more or less natural curiosity about their ancestors, but are also useful to the historian, as elucidating the often complicated relations of dynasties, families, claims, and controversies of successions, &c. They are also of importance in legal cases concerning claims of inheritance; and, indeed, are indispensable in states in which the enjoyment of certain rights is made to depend upon lineage or descent. A genealogy, or lineage, is frequently represented in the form of a tree (*arbor consanguinitatis*), giving a distinct view of the various branches of the family, and the degrees of descent from the common progenitor, who is generally represented in the root or stem. Genealogical tables are either descending or ascending. The former are chiefly used in historical records, presenting the descendants of a certain person in the order of procreation; the latter, in documents of nobility, serving to show the claims of any man or family to the titles of paternal and maternal ancestors. The Genealogical Society was established in London in 1843.

GENERA, *jen'e-ra* (Lat.), in Music, the different scales by which the Greeks regulated their divisions of the tetrachord, of which there were three—viz., the enharmonic, chromatic, and diatonic, all of which will be found treated of under their respective names.

GENERALIZATION, *jen-e-val-i-zai'shun* (Lat., *generalis*, general), the act of extending from particulars to generals; the act of making general.

In Logic.—The act of comprehending under a common name several objects, agreeing in some point which we abstract from each of them, and which that common name serves to indicate. Another kind of generalization is when, from observing that two or more objects have certain things or properties in common, that therefore they have others also in common. In this process of generalizing there is involved a principle which experience does not furnish, by which we affirm not only that all heavy bodies which have been observed gravitate, but that all heavy bodies, whether they have been observed or not, do so. In this there is implied a belief that there exists a certain order in nature, and that, under the same circumstances, the same substances will present the same phenomena. (See **INDUCTION**, **CLASSIFICATION**.)

In Mathematics.—A geometrical figure is said to be generated by another when produced by an operation performed upon the other, as in the case of a cone which is produced by the revolution of a right-angled triangle, one of the sides adjoin, the right angle being the axis.

In Chronology.—The interval of time between the birth of a father and the birth of his child. The average length of a generation is taken as 33 years.

GENITIVE, *jen'-i-tiv* (Lat., *genitivus*; Gr., *genike*), in Grammar, is the name of the second case in the declension of nouns, generally indicating the relation expressed in English by the preposition *of*. In English, the genitive, or posses-

sive, case is marked by the addition of the letter *s*, preceded by an apostrophe; as, the king's son, my father's horse. When the plural ends in *s*, the additional *s* of the genitive is omitted, and only the apostrophe added; as, kings' sons.

GENIUS, *je'-ne-us* (Lat., from *gigno*, I beget or produce), was the term applied by the ancient Romans to a class of spiritual beings which attended upon man; and hence, in course of time, the word came to signify the natural powers and abilities of men, more especially their natural inclination or disposition. In modern times it has come to be employed in a still more restricted and special sense, as signifying the very highest condition of the mental powers, the perfection of human intelligence. Like many other words of a similar kind, it is difficult or impossible to define it in words; but there is always associated with it the idea of creative or inventive power. Genius is sometimes used to signify that talent or aptitude which we receive from nature for excelling in any one thing whatever. Thus we speak of a genius for mathematics as well as a genius for poetry; of a genius for war, for politics, or for any mechanical employment. A modern writer says: "Genius may, perhaps, be defined as an unconscious, almost instinctive, exertion of the reasoning powers, by which the logical conclusion of an intellectual process is arrived at, without the process itself being apparent to the mind. In common language, it is described as inspiration, because the results reached are not the last step in a connected chain of reasoning. Genius *knows*, or believes implicitly that it knows, what ordinary minds accept when demonstrated by evidence. How it knows it cannot explain, but the knowledge is thenceforth united, not only with the intellectual, but with the emotional nature. The intuitions, or apparent intuitions, of genius are the faith of the intellect, a reliance on things unseen as absolutely as on those which are seen and proved step by step by the most rigid laws of logic. The intellect, by process, discovers truth; genius feels truth, but cannot readily demonstrate it. There is a tendency on the part of some to suppose that genius is a kind of prophetic intuition which enjoys a light denied to ordinary mortals. It has unquestionably a clearer perception of the light, reaches the brightness with more rapid and elastic steps, but the light is the same. Genius anticipates, as youth anticipates, but no more than steady and strong manhood can reach. It can discover no laws peculiarly its own, reach no atmosphere which may not be breathed by all. Genius always, by its more acute perceptions, discerns and believes in many possibilities, not suspected by others; but having announced them, the practical intellect, weaker in degree and slower in operation, but identical in kind, speedily realizes them. Genius does not discover and conquer a land where it alone can dwell, but opens up new regions to the wide world. Its limits are the eternal limits of the mind, marking the boundaries which all who are able may reach, but which none can go beyond. Within the domains so enclosed, intellectual and moral law is universal and impartial, and genius, although it possesses greater powers, has no special privileges. It can discover law, or rather the more subtle workings of law, but cannot, although oftentimes it would, make laws for itself."

GENRE PAINTING, *jhanrr* (Fr., kind, or fashion).—A term applied generally in the

Fine Arts to any special branch of painting, as historic or landscape; but more specifically to pictures containing human figures, especially of a small size, which cannot claim to be historical—figures which are typical of a class, and groups which represent no special incident, flower-pieces and representations of still life. The Dutch masters especially cultivated this style; and of living painters in this department, the French artist Meissonier is, perhaps, the most eminent.

GENTOO, *gen'-too* (Portuguese, *gentio*, gentile).—A name formerly given to the natives of India, but now obsolete.

"GEORGICS," *je-or'-jiks* (Gr., *georgika*, things relating to husbandry).—The title of a poem on agriculture and rural economy, by Virgil, in four books. It is regarded as the most perfect of his works, and displays an intimate knowledge of the subject.

GEOMETRICAL TRACERY.—A kind of architectural tracery where the parts are all more or less like diagrams in geometry.

GERMAN LANGUAGE AND LITERATURE (Ger., *Deutsche Sprache und Literatur*).—The German language is a branch of the Indo-Germanic class of languages, which separated from the parent stock at a very early period. The Germans called their language *Deutsch* or *Teutsch*, from their ancestors, the Teutons. In its widest sense the Teutonic consists of two branches—the Northern, or Scandinavian, and the Southern, or German. The latter has three sub-divisions—the Eastern, or Gothic, the High German, and the Low German. The Gothic is the earliest of these of which we possess any literary remains, there being still in existence portions of a translation of the Bible into Gothic made by Bishop Ulfilas in the 4th century; but we possess nothing of the High or Low German till the 7th century. Hence many persons have been led to regard the Gothic as the original source of the German; but, according to Max Müller, the grammatical differences between the two are of such a nature as to show that this was impossible. "There never was," he says, "a common uniform Teutonic language, nor is there any evidence to show that there existed at any time a uniform High German or Low German language, from which all High German and Low German dialects are respectively derived." The Gothic language died out in the 9th century. The Low German (*Platt Deutsch*) comprehends many dialects in the north or lowlands of Germany, as well as the Friesian, Dutch, and Flemish dialects. The oldest literary document of Low German on the Continent is the Christian epic the "*Heljand*" (Healer or Saviour), which is preserved to us in two MSS. of the 9th century. There are traces of a certain amount of literature in Saxon or Low German from that time onward, through the Middle Ages, up to the 17th century, but little of that literature has been preserved; and after the translation of the Bible by Luther into High German, the fate of Low German literature was sealed. High German (*Hoch Deutsch*) has been the literary language of Germany ever since the days of Charlemagne. Its history may be traced through three periods—the Old High German, extending from the 7th to the 12th century; the Middle High German, from the 12th century to the time of Luther; and the New High German, from Luther down to the present time. In the

present day there are various dialects of the German spoken in different parts of the country; as the Swabian, Bavarian, Franconian, Saxon, &c.

National Literature.—The earliest literature of Germany is known to us only by report or tradition. According to Tacitus, the Germans celebrated in songs, which were old even in his time, the praises of their national deity Tuisco, and his son Mannus, as well as the deeds of their great heroes. When the nations began to migrate, heroes of greater and greater renown march into the scene of song, and the historic forms of Attila, Theodoric, Günther, and others appear. The two most ancient German poems are the "*Lay of Hildebrand and Hadubrand*," and the "*Prayer of Weissenbrun*," which belong to the 8th century. Many of the legends of this period were afterwards embodied in the lay of the "*Nibelungen*," the most celebrated production of German medieval poetry. The introduction of Christianity exercised an important change in the early literature of Germany. The Latin language came to be that of the church, the court, and the law. A kind of religious poetry, after the model of the Roman poets, was introduced in place of the ancient heroic and mythical songs, and was fostered by the court as well as by the clergy. The poetical remains of this period are chiefly of a religious nature, and, together with the contemporary prose literature, are not worthy of notice. Germany, by losing its French and Italian provinces, had become Germany again; and a desire to cultivate the national literature again began to manifest itself; but the 11th century presents almost an entire blank in the history of German literature. The old High German had become a literary language chiefly through the efforts of the clergy, and its character was pre-eminently clerical. The Crusades, however, put an end to the clerical element in the literature of Germany. Middle High German, the language of the Swabian court, became the language of poetry, and the poets took their inspiration from real life, though they borrowed their models from the romantic cycles of Brittany and Provence. Poets made bold for the first time to express their own feelings, their joys, and sufferings, and epic poetry had to share its honours with lyric songs. There are two kinds of poetry of this period—the national, or people's poetry, the production of strolling minstrels; and the art poetry, or that of the courts, composed chiefly by kings and courtiers. The fall of the Swabian dynasty of the house of Hohenstaufen, in the latter half of the 12th century, was the death-blow to German chivalric poetry. The middle classes, the burghers of the free towns of Germany, were now beginning to rise into power, and poetry again changed hands. It now passed from the abodes of princes and knights to the homes of burghers and the workshops of artisans; and instead of the Minnesänger, we have the Meistersänger, and their strains were more subdued, practical, and homely. Poetry became a trade, like any other, and guilds were formed, consisting of master-singers and their apprentices. In the 13th century, prose literature begins to flourish, and several local chronicles appear—as well as works on jurisprudence, and some sermons. In the 14th century, Germany possessed several mystic theologians, as Eckart and Tauler, men of clear intellect and energy of purpose, whose sermons and writings contributed to pave the way for the Reformation. In 1373, the first complete translation of the Bible into German was made by Matthias of Beheim. An important event in this century, in its general influence upon the future progress of German literature, was the establishment of the university of Prague, followed soon after by universities in almost all parts of Germany. The 15th century was rich in scholars, but poor in men of genius or strong thinkers. The invention of the art of printing was a reformation in this century, the benefits of which were chiefly felt by the great masses of the people. It extended to them the privileges which had previously been confined to the rich. Between 1470 and 1500, several thousand editions of books were printed in Germany. The 16th century introduces, along with the Reformation, a new era in the history of the literature of Germany. Luther's translation of the Bible is so pure in language, and so beautiful in style, that it is still regarded, even in the present day, as a model of elegant expression. The religious quarrels which agitated

Germany during the 16th century gave to literature a theological direction, and the first scholars of that time were more or less engaged in religious controversy. The period before and after the Reformation was especially fruitful in satirical and allegorical works. One of the most remarkable of the former class was the "Ship of Fools" (*Narrenschiff*), by Sebastian Brant, a metrical satire on the follies of the age. The most able satirical and didactic poet of the 16th century was Johann Fischart, who has been called the German Rabelais. Of the popular songs (*Volkslieder*) of this period, some have been much admired. The works of Hans Sachs, the poet and cobbler of Nuremberg, display a very remarkable degree of fertility, liveliness, and humour. He was the most popular poet in Germany during that century. His works are numerous, and in all styles of composition, from the most tragic touch of feeling to the most comic turn of thought. This period produced several distinguished scholars and men of science; among whom may be mentioned Melancthon, Camerarius (classics and philology), Cornelius Agrippa, Theophrastus Paracelsus (mystical philosophy and natural history), Copernicus (astronomy), Leonhard Fuchs (botany and medicine), Conrad Gesner (botany and zoology), and Agricola (mineralogy). Towards the end of the 16th century, everything seemed drifting back into the Middle Ages; and then came the Thirty Years' war, which, in its consequences, was most disastrous to Germany. The physical and moral vigour of the nation was broken. We meet with no trace of originality, truth, taste, or feeling in the poetry of that period, except, indeed, in the sacred poetry, many of the hymns of Paul Gerhard being still sung in the Protestant churches of Germany. A rage for everything foreign that then prevailed was utterly opposed to nationality or originality. The "First Silesian school" is represented by men like Opitz and Weckherlin, and is characterized as pseudo-classical. It was initiated in the north of Germany by Simon Dach, Paul Flemming, and a number of less-gifted poets, who form the "Königsberg school." The chief heroes of the "Second Silesian school" are Hoffmannwaldau and Lohenstein, whose compositions are more ambitious, bombastic, and full of metaphors than those of Opitz; but are also more disappointing. Among the other works of this period we may mention the "Simplicissimus," a novel giving a lively picture of German life during the Thirty Years' war; the patriotic writings of Professor Schupp; the historical works of Puffendorf; the pietistic sermons of Spener and of Franke, Professor Arnold's ecclesiastical history; the first political pamphlets of Professor Thomae; and among philosophers, Jacob Boehme at the beginning and Leibnitz at the end of the century. The 18th century was marked by a revolution in the literature and modes of thought in Germany. Johann Christoph Gottsched, professor of eloquence at Leipzig, in the early part of this century, exercised great power as a critic. Among those who distinguished themselves were Gärtner, Gellert, Kästner, Adolf Schlegel (father of the brothers Schlegel), Kleist, and Gleim. Of greater influence, however, than any of those here named, were Hagedorn of Hamburg, whose fables and songs have immortalized him in Germany; and Albert von Haller, the physiologist, remarkable also as a writer of descriptive and didactic poetry. During this literary struggle, the great names of German poetry sprang up—Klopstock, Wieland, Lessing, Herder, Goethe, and Schiller. Klopstock's "Messiah" made a profound impression by its mystic, devout, and rapturous faith, as well as a work of art. The fashionable and elegant portion of society was attracted by the semi-Grecian semi-Parisian muse of Wieland. But it was reserved for Lessing to give a new direction to German literature. He established a new school of criticism, and exerted a powerful influence upon the progress of the drama, by unfolding, for the first time, to the German mind, all the beauty, originality, and vigour of Shakespeare. His tragedy "Emilia Galotti," his comedy "Mina von Barnhelm," and his philosophical drama "Nathan der Weise," are models of dramatic composition. Herder, a man of vast learning as well as a poetic genius, exerted a strong influence upon the poets of his time, and contributed powerfully to promote the study of Oriental poetry, as well as

the ancient popular songs of different nations. The crowning work of his life is his "Ideen zur Philosophie der Geschichte der Menschheit." Another great impulse was given by Winckelmann, whose writings on the remains of ancient art modified all the old theories of the beautiful. It was only, however, after Schiller's union with Goethe (1795) that, by their combined labours, German literature was brought to that classic perfection which, from a purely local, has since given to it a universal influence. The philosophic spirit of this age also gave birth in rapid succession to the master minds of Kant, Fichte, Hegel, and Schelling. Jean Paul Richter is a peculiar and powerful writer of this period, whose works, though characterized by obscurity and irregularity, are frequently lighted up by flashes of humour and brilliant gems of thought and feeling. Novalis (von Hardenberg) is another strangely-constituted writer, whose works, though few and fragmentary, contain scattered thoughts of such wisdom and genius as to give them a high place in the literature of his country. Ludwig Tieck, a more voluminous and connected writer than his friend Novalis, was also much more of a creative genius. To the so-called Romantic school belong the brothers Schlegel—August Wilhelm, author of various critical and æsthetic works, and a metrical translation of Shakespeare; and Friedrich, known as a writer on the history of ancient and modern literature, and the philosophy of history. In almost every department of literature, the writers of the present or last century, in Germany, occupy a chief place. (See GERMAN PHILOSOPHY AND GERMAN THEOLOGY.) Merely to enumerate the prominent recent and living authors would occupy more space than our limits will allow.

German Philosophy.—The philosophic spirit which characterises Germany in the present day is only of comparatively modern origin. The old scholastic forms retained their place here long after they had been forsaken in France and England. Leibnitz was the first German who made an epoch in the history of German philosophy, and who, from the influence which he exerted on all sides, must be regarded as the originator of the philosophic spirit in Germany. Christopher Wolf sought to establish a system of philosophy complete in all its parts, according to the rules of strict logic, and he exerted a great influence for a time. With Immanuel Kant begins the more modern period of German philosophy; and although, at first, his "Critique of Pure Reason" was in danger of being overlooked; yet, after a time, this and the principal of his other critical works, which, after long preparation, made their appearance in rapid succession, gave a powerful stimulus to scientific research. (See KANTIAN PHILOSOPHY.) J. G. Fichte believed that he had found that absolute point of unity which the criticism of Kant had indicated, in the fact of consciousness. Fichte, travelling on the path which Kant had pointed out, changed the half-idealism of Kant into a complete idealism, while he declared the ego to be, not only the bearer and source of knowledge, but also the only reality, the representation and act of which is the world. With this idealism began a kind of revolutionary excitement among the philosophic minds of Germany, which contrasted strongly with the quiet and sober spirit of Kant. System followed system, philosophic literature became overwhelming, and the public excitement was general for twenty or thirty years. Schelling was the first to exert a more general influence, and changed the idealism of Fichte, under the influence of Spinoza, into the so-called philosophy of identity. Schelling assigned intellectual intuition as alone corresponding to the absolute; yea, as representing, and identical with, the absolute itself. The organ of this intuition was called reason, and, as such, was opposed to the reflection of the understanding, which was held to be quite incapable of comprehending absolute identity. In the direction indicated by Fichte and Schelling, the philosophy of Hegel also asserted itself, and attempted to develop in regular succession the contents of the intellectual intuition by the dialectic method. (See HEGELIAN PHILOSOPHY.) While the systems above-mentioned form a tolerably straight line of progress, there arose certain other systems, as that of J. F. Herbart, in opposition to the idealism of Fichte, and which took a direction quite contrary to the philosophy of the time. Herbart, Schelling, and Hegel are the only thinkers that can

claim to have exerted any general influence since the time of Kant. Among the numerous other thinkers of this time, who were chiefly occupied in defending or remodelling the older systems, we may mention Krug, Fries, and others, who were employed in the development of the Kantian system; Steffens, Oken, Schubert, F. von Baader, and Eschenmayer, who were employed chiefly in physical researches; those who attempted to exhibit systematically the philosophy of Jacobi; the different attempts to bring back philosophy to an empirical psychology; the peculiar speculative attempts of Schleiermacher, J. J. Wagner, Krause, Weisze, the younger Fichte, Branisz, E. Reinhold, A. Trendelenburgh, H. Ritter, A. Günther, and others; the different tendencies within the Hegelian school; and, finally, the relation which Schelling latterly took up to his own earlier teaching, as well as to that which had been developed out of them.

GERUND, *ger'-und* (Lat., *gerundium*, from *gero*, I carry), in Latin Grammar, is a part of the verb used to denote something as being done; thus *legendum*, reading, from *lego*, I read. It is a sort of verbal substantive, being declined like a noun, but having the same power of government as its verb. In English, the present participle occupies the place of the gerund.

GESTA ROMANORUM, *jes'-ta ro-ma-no'-rum* (Lat., the deeds of the Romans), is the title of a work of the Middle Ages, written in Latin. It is a collection of stories, each of which purports to be a narrative of events which occurred during the reign of a Roman emperor. Some of the names given, however, were never borne by any emperor. Some of the stories are from Oriental sources, some originated in the Talmud, and some are derived from Greek literature. They were probably written or collected early in the 14th century, and have been attributed to Petrus Berchorius, of the Benedictine convent of St. Eligius in Paris; but it is probable that he only contributed the moral reflections and that the actual author (or editor, as in modern fashion, he might be styled) was a monk named Elinadus. The collection soon became popular in England. Preachers made use of the stories, and Chaucer, Lydgate, Shakespeare, and many others freely adapted them. The origin of *The Merchant of Venice*, *King Lear*, and *Pericles* may certainly be traced to this book; and German fabulists and novelists made great use of it. There are old translations into French, English, German, and Dutch. An edition was prepared by Sir Frederick Madden for the Roxburghe Club; and in 1880 an edition was published by the Early English Text Society.

GHOSTS. (See APPARITION.)

GIAOUR, *djowr* (Turkish, infidel), a term applied by the Turks to Christians, or, indeed, to all who are not Mohammedans. Originally, it was employed as an expression of contempt or reproach, but it is now used merely as a distinctive epithet.

GIBBON'S "DECLINE AND FALL OF THE ROMAN EMPIRE."—One of the most elaborate and able historical works ever produced, written in a noble style, and exhibiting an almost unrivalled mastery of complicated details. The author, Edward Gibbon, conceived the idea of writing it when sitting amidst the ruins of the Capitol at Rome, on the 15th October, 1764. The first volume was published in 1776, and achieved a great success. The work was not completed until June, 1787. Three years after the appearance of the last six volumes of the original

edition, the publisher, Mr. Cadell, issued an edition in twelve volumes, and he is said to have cleared £50,000 by the sale of the work. Writing shortly after the appearance of the first volume, in 1776, Gibbon says, "The first impression was exhausted in a few days; a second and third edition were scarcely adequate to the demand, and the booksellers' property was twice invaded by the pirates of Dublin. My book was upon every table, and almost on every toilette, the historian was crowned by the taste or fashion of the day." The concluding chapters (15th and 16th), of the first volume, greatly alarmed religious people, by its method of accounting for the progress of Christianity, and several elaborate replies, especially one by Bishop Watson, were published. In some modern editions these chapters were omitted; but in the edition edited by Milman, the great ecclesiastical historian, the chapters are retained, with appended notes which successfully expose the weak points of Gibbon's argument. The entire work, is described by Niebühr, as probably the greatest achievement of human thought and erudition in the department of history. Prescott says of the author, "He exhibits his ideas in the most splendid and imposing forms of which the English language is capable;" and Alison, the historian of Europe, speaks of "The Decline and Fall," as the greatest historical work in existence. The history includes that of the Western and Eastern empires; and extends from the year 89 A.D., to the 16th century, when the Popes acquired the absolute dominion of Rome.

GILLYFLOWER, *jil'-le-flower* (French, *girofle*, a clove).—A popular name for wall-flowers, stocks, and the clove-pink. Some writers have suggested "July flower" as the origin of the name; but Chaucer uses the form *gilofre*, evidently a corruption of the French.

GINGAL, *jin'-gal*.—A large clumsy musket, fired from a rest, used by Chinese soldiers when defending a fortress.

GIPSIES. (See GYPSIES.)

GIRTON COLLEGE, CAMBRIDGE.

A collegiate institution exclusively for female students. It was first established at Hitchin in 1869, and removed to Cambridge in 1873. There are about 60 young lady students, and many have highly distinguished themselves.

GLACIS, *glad'-se* (Fr.), in Fortification, the inclined plane or slope that extends from the exterior of the covered way towards the open country.

GLADIATORS, *glad'-e-ai-tors* (Latin).—Those persons who fought, generally in the arena at Rome, for the entertainment of the spectators. The custom of gladiatorial combats was introduced into Rome from Asia, and some suppose that the reason of keeping up the diversion was to accustom the people to despise danger and death. The origin of these combats seems to have been a custom in which many nations indulged, of sacrificing captives or prisoners of war to the manes of the men who had died in the campaign. The profession of gladiator became an art, the masters of which were called *lanistæ* by the Romans. They purchased and trained up slaves for the purpose, and then sold them to those who had charge of the gladiatorial exhibitions. In process of time the Romans became so fond of these bloody entertainments that not only heirs

coming into property, but all the principal magistrates, presented the people with shows of this nature in order to court their favour. The emperors also found it was much to their interest to provide gladiatorial displays. On several occasions Rome was in danger through the large number of gladiators. One of the most memorable instances happened in the year 76 B.C., when seventy-four gladiators, headed by Spartacus, a Thracian, overcame their master at Capua, and fled to the mountains. There they were joined by runaway slaves and peasants, and soon became the terror of the country, and spread alarm almost to the gates of Rome. The war lasted three years, when Spartacus was slain by M. Crassus, after displaying much valour. Gladiators were classed according to the weapons which they used and the manner in which they fought. The *Ordinarii* fought in pairs in the ordinary way; the *Caterarii* fought several together; the *Equites* fought on horseback; the *Retiarii* used a fork, called a *tridens*, and a net, which they threw over their opponent, who was generally armed with a short sword and a shield: the *Andabate* fought blindfolded, the helmets which covered their heads having no apertures—their ludicrous motions were very amusing to the spectators; and the *Hoplomachi*, who fought in complete armour; together with various others. All the gladiators wore armour on the right arm, if nowhere else, and all wore helmets and carried shields, except the *Retiarii*. When a gladiator was so severely wounded as not to be able to continue the fight, his antagonist stood over him pausing, until he received the fiat from the spectators, as to whether he should kill him or not. If he had fought well, the audience turned their thumbs downwards, to indicate that his life should be spared. If, however, he had neither shown courage nor address, they held up their thumbs, and the victor immediately passed his sword through the body of his fallen antagonist. Palms were awarded to the conqueror, and a gladiator, on retiring from service, was presented with a wooden sword.

GLASGOW, UNIVERSITY OF, *glas'-go*, was founded in 1457 by William Turnbull, bishop of Glasgow, in terms of a bull obtained from Pope Nicholas V. in the preceding year. Two years after, King James II. conferred upon it, by royal charter, certain important privileges. In 1459, James Lord Hamilton bequeathed some property in Glasgow for the use of the College of Arts; and a few years later, Thomas Arthurlie bequeathed another tenement to the college. During the period of the Reformation, this university was almost completely annihilated; but in 1560, Queen Mary bestowed upon it the manse and church of the Preaching Friars, with thirteen acres adjacent; and in 1577, James VI. endowed it with the rectory and vicarage of the parish of Govan. Since that time the college has continued to flourish, and has given forth many learned men. In 1864, the university buildings and adjacent lands in the busiest part of the city were sold, and noble buildings were erected, from designs by Sir G. Gilbert Scott, over the West End Park, on the bank of the Kelvin river, and opened in 1870. The cost of the building was about £500,000, of which £120,000 was voted by Parliament, and £100,000 was paid by a railway company for the old site. The building, which has a central tower 150 feet high, surmounted by a tall spire, is in the Early

Pointed style, intermixed with the domestic Franco-Scottish.

Governing Bodies and Office-Bearers.—The office-bearers are the Chancellor, Rector, Principal, and Dean of Faculties. The Chancellor and Rector are purely honorary offices, the former held for life by a nobleman of high rank (the Duke of Buccleuch being the present Chancellor), and the latter by some person of great literary or political eminence. The Rector is elected for three years by the students, and his chief duty is to deliver an address some time during his term of office. The Dean of Faculties is elected annually by the Senate.

Faculties and Professors.—There are faculties of arts, law, medicine, and theology, with chairs for Latin, Greek, mathematics, logic, natural and moral philosophy, humanity, English language and literature, natural history, botany, chemistry, anatomy, physiology, institutes of medicine, pathology, materia medica, practice of physic, clinical surgery and medicine, midwifery, surgery, divinity, church history, Oriental languages, Biblical criticism, conveyancing, civil engineering, and astronomy.

Students' Bursaries and Exhibitions.—There are about 1,500 matriculated students, divided, according to their place of birth, into four "nations":—*Glottiana*, (Lanarkshire), *Transforthana* (Scotland north of the Forth), *Rothseina* (Buteshire, Renfrewshire, and Ayrshire), and *Loudoniana* (all other places). There are, in the gift of the Senate, about 30 bursaries, of the yearly value of from £6 to £50; and ten exhibitions at Oxford, founded by John Snell, a native of Ayrshire, who, in 1688, bequeathed a considerable estate in Warwickshire for the support at Balliol College, Oxford, of Scotch students who had studied at the University of Glasgow.

Degrees.—The degrees granted are Master of Arts, Doctor of Medicine, Master of Surgery, Bachelor of Divinity, Doctor of Divinity, Doctor of Laws, and Bachelor of Laws, the last three being honorary.

GLASSES, MUSICAL, an instrument of music, composed of a number of drinking-glasses, tuned by filling them more or less with water, and played upon by rubbing them with the end of the finger damped. The smaller the quantity of water contained in a glass, the lower is its tone; hence, it is evident that by procuring a number of glasses, exactly alike in size and shape, and putting a certain amount of water in each, a complete scale may be formed. (See HARMONICA.)

GLEE, *glee* (Sax., *glie*), a vocal composition in three or four parts, generally consisting of more than one movement, the subject of which, notwithstanding the received sense of the word *glee*, may be either gay, tender, or grave.

GLEEMEN, *glee'-men*, a name given by the Saxons before the Conquest to those who were afterwards called "minstrels." Their art consisted not only in being the poets and historians of their times, but they were also buffoons, rhymers, singers, story-tellers, and jugglers, all these branches being sometimes filled by one man, but oftener by several.

GLOBALAR PROJECTION, *glob'-u-lar*, the name more particularly applied to a kind of projection, very seldom used in map-drawing, in which the eye is supposed to be situated at a point which is distant from the part of the globe that is represented by one half of the chord of an arc of 90°.

GLORIA IN EXCELSIS, *glo'-re-a in eks-sel'-sis* (Lat., glory to God in the highest), is the name of a hymn in the Roman Catholic service, and also in the communion service of the Church of England, and is so called from the words with which it begins. It is founded on the hymn of

the Angels, given in Luke ii. 14, and is very ancient, appearing nearly as now used in the Apostolic Constitutions. It is also known as "the great Doxology."

GLOSS, *gloss* (Gr., *glossa*, a tongue or language).—The explanation or interpretation of uncommon or foreign words; hence the term *glossary*, which is applied to a collection of such words arranged and explained in alphabetical order.

In Jurisprudence.—The name is given to the interpretations or explanations of the Justinian code, which were generally written between the lines of the text and on the margin, and were hence called *glossæ interlineares* and *glossæ marginales*. These glosses were sometimes held to be of equal authority with the text itself. Accursius, who died about 1260, collected and arranged the glosses of his predecessors. The practice of introducing glosses was also adopted with the books of the canon law.

In Biblical Criticism.—The explanation of verbal difficulties in the text, in reference especially to foreign, provincial, obsolete, or technical words. There are various Hebrew, Greek, and Latin glossaries.

GLOVE, *gluw* (Sax., *glof*), a covering for the hand, and is divided into compartments for each separate finger. Xenophon asserts that the Persians used gloves in cold weather, and makes a charge against them, on that account, for their luxurious habits. They were in early use in England, as is learned by their Saxon name; and in the Middle Ages they were decorated with gold and precious stones, and formed a costly article in the dress of kings, nobles, and prelates. In the days of chivalry, it was the custom for the knights to wear the glove of a lady in their helmet, and this gift from the fair sex was esteemed a great favour, the knight's success in arms being considered as owing to the virtue of the lady. Throwing down the glove or gauntlet, was likewise esteemed a challenge to single combat amongst our ancestors, and he who took up the glove thus cast down was deemed to have accepted the wager of battle. According to an ancient custom, it is the practice on a maiden assize—that is, when there is no offender to be tried—for the sheriff to present the judge with a pair of white gloves, and a similar practice is frequently observed in a magistrate's court; also during the time fairs were held, it was the custom to hang out a glove from the town-hall, and as long as it remained suspended there, all persons visiting the fair were privileged or exempt from arrest; and the taking down of the glove was a signal that the fair was closed and the privilege at an end.

GLYPHOGRAPHY, *gli-fog'-ra-fe*.—A process now very little practised, intended as a cheap substitute for wood-engraving. A plate of metal has an ordinary etching-ground placed upon it, the metal is etched in the usual manner. It is afterwards submitted to the action of a voltaic battery, whereby a plate with the drawing in relief is obtained. This plate may be printed in conjunction with type, or separately, at a typographical press.

GNOME, *nome* (Gr., a sentence or opinion), a short sententious saying, conveying some maxim or moral precept. The gnomic poets are those Greek poets whose remains consist chiefly of gnomes, short sententious precepts and reflections. The principal writers of this class are Theognis, Solon, Phocylides, Tyrteus, Simonides.

GNOME (Gr., *gnomon*, knowing, cunning),

is the name given by cabalistic writers to a certain class of elemental spirits, which they believe to inhabit the earth and to preside over its treasures. They were of both sexes, and some were said to be beautiful, and others ugly. They sometimes did good, and sometimes evil, to man, the latter especially when they were irritated. The well-known German Rübzahl, or "Number Nip," being of this class. Pope and Darwin have made graceful poetical use of these spirits in "The Rape of the Lock," and "Loves of the Plants."

GNOMONIC PROJECTION, *no-mon'-ik*. (See PROJECTION.)

GOBLIN, *gob'-lin* (French, *gobelin*; Greek, *kobalos*).—In popular superstition, a spirit which lurks about houses or in lonely places, "bogies," or "boggles." Shakespeare uses the word in *Hamlet* in the sense of a malignant spirit, "goblin damned;" and Milton, as equivalent to the good-natured elf which assists in household work, "the drudging goblin."

GOBELIN TAPESTRY. (See TAPESTRY.)

"GOD SAVE THE KING [QUEEN]."

The national anthem of Great Britain, respecting the origin of which there has been considerable dispute. The music is generally credited to Dr. John Bull, a composer of eminence in the time of James I., and who set to music an ode beginning, "God save great James our King," written in commemoration of the discovery of the Gunpowder Plot; but recent research has proved that Dr. Henry Carey, an English poet and musician, who died in 1743, was the author of the words and the music. It was performed for the first time in public at a dinner given in 1740 by the Mercers' Company, in honour of the birthday of George II. The words have been occasionally altered to suit the exigencies of metre dependent on the change of the sovereign's name. The air has been adopted as the national anthem of Germany. Attempts have been made to show that it is almost identical with an old French air.

GOG AND MAGOG, *ma'-gog*.—These names have been popularly given to two huge figures that adorn the Guildhall of London. Many fables are given of the origin of these worthies; and some antiquaries suppose they were intended to represent two mighty Cornish giants, who figure largely in legendary history. The old giants, which were of wickerwork and pasteboard, were destroyed by the great fire of 1666, and the present ones, of wood, were constructed in 1708. They are fourteen feet high.

GOLDEN FLEECE.—In Greek legend, the fleece of a ram which it was the object of the Argonautic expedition to recover. (See ARGONAUTIC EXPEDITION.)

GOLDEN LEGEND (Lat., *Aurea Legenda*), a work of a Dominican friar, James de Voragine, who was born in or about the year 1230, and who became first provincial of his order, and afterwards archbishop of Genoa. The Golden Legend consists of a history and description of all the different saints and festivals in the calendar. From the fact of its being more descriptive than critical, it illustrates the religious habits of the period better than any other work could have none. The title "Golden Legend" was adopted by Longfellow for one of the most beautiful of his longer poems, founded on a medieval story of a young maiden who was will

ing to sacrifice her life to secure the restoration to health of her prince.

GOLF, *golf* (Du., *kolf*, a club).—A very popular game in some parts of Scotland, but the exact period of its introduction is unknown. It is played with a ball and clubs, on links or downs. The ball is of gutta-percha, painted white, and about an inch and a half in diameter. The clubs are of various kinds, according as the object may be to send the ball a long or a short distance, to raise it out of an awkward position, &c. The game is played on extensive links, and a series of small round holes about four inches in diameter, and perhaps the same in depth, usually several hundred yards apart, are disposed so as to form a circuit or round, composed probably of six or eight of them; but much depends upon the nature of the ground. The game is properly played by only two persons; but sometimes there are two or more persons on each side, and then those on one side strike the ball alternately. The object of the game is to drive the ball from one hole into another with the fewest number of strokes, and the person who puts in his ball with the fewest number of strokes is said to gain a hole. The match is usually decided by the greatest number of holes gained in one or more rounds.

GONDOLA, *gonf-do-la* (Ital.), a peculiar kind of boat used at Venice for the same purposes as cabs and carriages in other cities. It is usually about thirty feet long, five in breadth, and light and elegant in form, having high prows, some of which are of elaborate workmanship and elegantly carved. About the centre a cabin is erected for the passengers, which is carpeted, hung with curtains, and fitted with stuffed cushions. A law was passed by the ancient republic ordaining that all these boats were to be painted black and hung with black cloth, except those for the use of foreign ambassadors and for state purposes. The name gondola is given in other parts of Italy to passage boats having six or eight oars.

GONFALON, *gonf-fu-lon*.—The name given in Italy to a standard or ensign. In some of the cities the chief magistrates were formerly known as gonfaloniers.

GONG, *gong* (Ang.-Sax.), a musical instrument, used in Asia chiefly to give a national cast to the music, or to awaken surprise and arouse the attention of the auditors. It is of a shallow, circular, concave form, and is made of a composition of tin and copper, and its tones, which are very deep and sonorous, are produced by striking it with a kind of drumstick, having a head covered with leather. In this country the gong is employed in public gardens and institutions as a signal for the departure of visitors, and sometimes in country houses as an intimation that dinner is preparing. The name is imitative of the sound.

GONVILLE AND CAIUS COLLEGE, CAMBRIDGE.—The college was originally founded in 1348 by Edmond Gonville. Bishop Bateman of Norwich, the executor of Gonville, altered the name to the "Hall of the Annunciation of Blessed Mary the Virgin." Dr. Caius, an eminent court physician, obtained a Royal Charter in 1558, and refounded the college, altering the name to that which it now bears. There are a master, 32 fellows, and 40 scholars. The fellowships are not vacated by marriage, but terminate

at the end of ten years, except under certain circumstances. The scholarships are all open, and are divided into four classes of different values—nine of £50, nine of £40, eight of £30, and fourteen of £20. There are also two scholarships of the annual value of £52 10s. appropriated to Harrow School; and five Tancred studentships in medicine, each of the annual value of £100. The number of undergraduates averages about 135.

GORDIAN KNOT, *gor'-de-an not*.—According to Greek legendary history, a knot made in the harness of a chariot by Gordius, king of Phrygia, which knot was so intricate as to baffle every attempt to untie it, or even to find out where it began or ended. The oracle of the day having declared that he who succeeded in solving the complications should be the conqueror of the world, Alexander the Great determined to effect it if possible. Deliberating that if he failed, his followers would be dispirited, he determined to separate it with his sword, and with one blow he cut the momentous Gordian knot, which was fraught with such interest to the whole world. The expression "cutting the Gordian knot," has consequently been used by the moderns to signify eluding any difficulty or task by bold or unusual means.

GORE.—In Heraldry, a charge cutting off one third of the shield. A gore sinister is a mark of dishonour.

GORGE, *gorj* (Fr.), the name that is given to the entrance of any military work, or that part which is open to the rear between the inner extremities of its flanks or faces.

GORGET, *gor'-jet* (Fr., *gorgette*), a small piece of steel armour, intended to protect the neck and throat. It was worn by officers in the army long after the use of armour had been abandoned.

GOSSIP, *gos'-sip* (Sax., *God-sib*, a kinsman in God), was a name formerly given, in England, to the sponsors at baptism. It is formed from *God* and *sib* (affinity), and hence denoted one who was considered to have a kind of spiritual affinity to another. In popular language, the word was sometimes applied to a priest who heard confessions.

"**GOTHA, ALMANACH DE**," *go'-tha*, is a famous publication which takes its name from the city of Gotha, in Germany, where it is published. It is a small pocket volume, 32mo, containing nearly 1,000 pages, and has been issued every year since 1763. It is chiefly remarkable for the large amount of statistical and political information which it contains, regarding all the different states of the world; and as these are always prepared with care from the most reliable sources, it is received as an authority upon such points. German and French editions are printed.

GOTHIC ARCHITECTURE, *go'-thik*. The name given to the style of architecture that was adopted by European nations generally during the mediæval ages. The name was first applied as a term of reproach by the Renaissance architects (*see* RENAISSANCE) to the mediæval styles. We may consider Gothic architecture to consist of two divisions—the Romanesque, or round-arched Gothic, and the Mediæval, or pointed Gothic, to which the term "Gothic" is now more particularly applied, and, indeed, generally restricted. The early forms of the

round-arched Gothic were based on the architecture that prevailed in ancient Rome about the time of the Christian era, in which the circular arch is a common feature. (See ROMANESQUE ARCHITECTURE.) During the 11th, and the early part of the 12th century, Gothic architecture was in a state of transition from the first stage to the second, round and pointed arches being used indiscriminately; and in the cathedrals and churches that were erected in England during this period, such as Canterbury Cathedral, Glastonbury Abbey, and the Abbey Church of St. Albans; and in France, nearly to the close of the 13th century, many of the characteristics of the Romanesque and Pointed styles of Gothic architecture are to be seen in juxtaposition. Medieval, or Pointed Gothic architecture, dates from the middle of the 12th century, and is divided, in England, into three distinct varieties, known as the First, Second, and Third Pointed, or, the Early English, Decorated English, and Perpendicular English styles of architecture. The principal characteristics of these styles, and the period of time during which each was successively the prevailing form of Anglo-Gothic architecture, are mentioned elsewhere. (See EARLY ENGLISH, DECORATED ENGLISH, PERPENDICULAR ENGLISH.) These three styles were all marked by the use of the pointed arch struck from two centres, which varied in form, the arches being termed obtuse or acute as the centres were taken within or without the span of the arch. Of the different forms of pointed arches that may be obtained by varying the position of the centres from which the curves that form the arch are described, the equilateral arch, in which the centres coincide with the extremities of the span, is considered as the characteristic of architecture that may be termed purely Gothic. During the prevalence of the Third Pointed, or Perpendicular English style, an arch was introduced which is known as the four-centred or depressed arch, being composed of segments of circles struck from four different centres, and having the point of the arch but a short distance above the span. This arch became the characteristic feature of the Tudor style of architecture (see TUDOR ARCHITECTURE); a style which is generally termed by architects debased English, and which was the last phase of Gothic architecture in England, being the prevailing style, especially in colleges and buildings of a private character, until the middle of the 16th century. From this time few, if any, buildings were erected after the Gothic style in this country, until its revival about 1825, which is mainly owing to the endeavours of A. W. Pugin, an architect of considerable eminence in his profession, to restore a taste for Gothic architecture, especially in buildings designed for ecclesiastical purposes, that had long lain dormant. Since that time considerable improvement has been effected in the style of our church architecture; and among other public buildings that have been erected in this style may be named that magnificent structure the New Palace of Westminster. Sir G. W. Scott, Mr. Street, and other eminent architects have designed many splendid churches and public edifices in this style. French Gothic architecture, like that of England, is divided into three styles, termed *Ogival primitif*, *Ogival secondaire*, and *Ogival tertiaire*, or *Flamboyant*; corresponding to our First, Second, and Third Pointed styles in their principal characteristics, and the period of time during which they prevailed.

GOTHIC LANGUAGE. (See GERMAN LANGUAGE AND LITERATURE.)

GRAAL, or GREAL, SAN, or HOLY, grai'-al.—The subject of many medieval legends, and of metrical romances founded thereon. Graal, or gréal, a word of uncertain origin, means a dish or chalice. The legends represent the Holy Graal to have been brought from heaven by angels, and to have been drunk from by Christ at the Last Supper. One version of the legend affirms that the graal was the dish which held the paschal lamb on the same occasion. It was made of a single precious stone, and had the power of preserving purity, and prolonging life. Joseph of Arimathea was said to have caught the last drops of the Saviour's blood in it; and it was afterwards guarded by angels and then by a number of pure and devoted knights on an inaccessible mountain. The legends and poems referring to Arthur and the Knights of the Round Table (see ARTHURIAN LEGENDS) represent some of the knights as engaging in the search for the Holy Graal, and encountering extraordinary adventures; and Tennyson has embodied the legend in his "Idylls of the King." It appeared in German poetry as early as the 13th century.

GRACES, THE.—In Greek mythology, the goddesses of grace, beauty, and gentleness. Homer does not limit their number, representing them as attending on Venus, especially at the back. Most of the later poets mention three, Aglaia, Thalia, and Euphrosyne; but others refer to two only. In pictorial and plaster art, they are generally represented as three beautiful nude nymphs affectionately embracing.

GRACIOSO, *grath-e-o'-so* (Sp.), is the name given in Spain to the buffoon, who is a very popular personage on the stage in that country.

GRADUATE, *grad'-u-ait* (Lat., *gradus*, a step), is one who has taken a degree at a college or university. The act of conferring degrees is called graduation. (See DEGREE, UNIVERSITY.)

GRADUS AD PARNASSUM, *grai'-dus ad par-nas'-sum* (Lat., a step to Parnassus), is the name of a classbook used by scholars for assisting them in the composition of Latin verses. The words are arranged in alphabetical order, and the quantities of each marked. The first work of this kind was by the Jesuit Aler, and published at Cologne, 1702.

GRAFFITO, *graf-fé'-to* (Ital., a scratching), is the name given to a class of inscriptions which have been found in Pompeii, Rome, and other ancient cities, and which have recently excited some interest. They are street scribbles, the names, words, and sentences which are found rudely traced in charcoal or red chalk, or scratched with a stylus on the plaster of the walls or pillars in the public places. Many of the inscriptions are of a religious character, others political; but the great majority of them appear to have been personal, and often of a satirical or grossly libellous character, and frequently disgusting. They are certainly not worth the labour bestowed on them by some scholars and antiquaries.

GRAMMAR, *gram'-mar* (Fr., *grammaire*; Ger., *grammatik*; Gr., *grammatiké*; Lat., *grammatica*).—The art of speaking or writing any language with correctness and propriety. Without attempting any alteration in a language already in use, it furnishes certain rules, founded

on observation, to which the method of speaking adopted in that language may be reduced; and this collection of rules is called the grammar of that language. But apart from grammar, as applied to any particular language, there is the pure science of grammar, otherwise called universal grammar, which views language only as significant of thought, and, neglecting particular and arbitrary modifications, introduced for the sake of beauty, or otherwise, examines the analogy and relations between words and ideas; distinguishes between those particulars which are essential to language and those which are only accidental; and thus furnishes a certain standard by which different languages may be compared, and their several excellencies or defects pointed out. It was through the study of the ancient dialects of their own language that the Greeks of Alexandria were first led to critical and philological studies. The general outline of grammar existed at an earlier period, but they were the first to study the language critically, analyzing and arranging it under general categories, distinguishing the various parts of speech, inventing proper technical terms for the various functions of words, &c. The first real practical Greek grammar was that of Dionysius Thrax, a Thracian, who went to Rome, and taught the language there about the time of Pompey. He was the first who applied the results of the labours of former philosophers and critics to the practical work of teaching. His work thus became one of the principal channels through which the grammatical terminology which had been carried from Athens to Alexandria flowed back to Rome, to spread from thence over the whole civilized world. After Constantine had moved the seat of government from Rome, grammatical science received a new home in the academy of Constantinople. There were no less than twenty Greek and Latin grammarians who held professorships at Constantinople. Under Justinian, in the sixth century, the name of Priscianus gave a new lustre to grammatical studies, and his work remained an authority during the Middle Ages to nearly our own times. Grammar, in its essence, may be described as a logic of words, showing their mutual relation in accordance with the logical consistency of the thoughts they express. In treating of the grammar of any language, grammarians usually divide the subject into four distinct heads:—*Orthography*, or the art of combining letters into syllables and syllables into words; *Etymology*, or the art of deducing one word from another, and the various modifications by which the sense of any one word can be diversified consistently with its original meaning, or its relation to the theme whence it is derived; *Syntax*, or what relates to the construction or due disposition of the words of a language into sentences or phrases; and *Prosody*, or that which treats of the quantities and accents of syllables, and the art of making verses. All language is made up of words, which may be defined to be sounds significant of some idea or relation, and may be distinguished as—1, Substantives; 2, Attributives; 3, Definitives; and 4, Connectives. (See ADJECTIVES, ADVERBS, ARTICLES, NOUNS, PRONOUNS, VERBS, and other headings.)

GRAMMARIAN, *gram-mai'-re-an*, was anciently a title of honour given to persons accounted learned in any art or faculty whatsoever; but now it is commonly applied to one who is skilled in or who teaches grammar.

GRAMMAR SCHOOLS. (See SCHOOLS.)

GRAND-MASTER, a name which was applied, during the Middle Ages, to the chiefs of the various dominant orders of knighthood, as the Templars and the Hospitalers, the latter of whom were later termed the Knights of Malta. The grand-master was, in a sort of a way, the sovereign for life of the order which he commanded, and his word was law in all matters, whether concerning life or death.

GRAPE-SHOT, *grapp*, a kind of shot used against troops advancing in column at a short distance, or, in naval warfare, to sweep the decks of an enemy's ship at close quarters. It consists of a number of balls fastened together, in the form of a short cylinder. The balls vary in weight, according to the calibre of the piece from which they are to be discharged. The shot are placed between a series of iron plates, the whole being kept together by pressure, exerted by a nut screwed on to the end of the bolt which passes through them. The shot begin to scatter immediately on leaving the muzzle of the piece.

GRAPHOTYPE, *gra'-fo-tipe* (Gr., *grapho*, I write; *typos*, an impression), the name given to a process of engraving, discovered in 1860, by Mr. de Witt Clinton Hitchcock, an artist of New York, enabling the artist to become his own engraver. An artificial chalk block or plate is produced by grinding the best French chalk to a fine powder with water, to a thin cream, and by pressure depositing it on a zinc plate, which then presents a perfectly smooth upper surface. The artist proceeds as in the ordinary method of drawing on wood. The drawing being completed, the portions of the chalk surface intervening between the lines of the drawing, are disintegrated and removed, to the depth of an eighth of an inch or so by means of brushes, some of them of fitch-hair and others of silk velvet, and the chalk block is then hardened by being soaked in a solution of an alkaline silicate. A mould is then taken from the chalk block, and a type-metal cast produced from this mould. The process is now very little used.

GRAVITA, *grav-e'-ta*.—In Music, an Italian term directing that the piece is to be played or sung in a grave and earnest manner.

GREAVES, *grevz* (Sp. and Port., *grevas*), pieces of armour used at a very early period to defend the leg between the knee and the ankle. They formed a part of the armour of the early Eastern nations. At the time of the Norman Conquest, armour for the legs consisted of hose, on which scales or rings of metal were fastened. When plate-armour came into use, the greaves consisted of plates of polished steel, covering the fore part of the legs.

GREEK ARCHITECTURE.—The early architecture of Greece is exemplified in the massive remains of walls at Mycenæ, Argos, and others of the old Grecian cities, which are composed of huge, irregular, undressed blocks of stone roughly piled together. (See CYCLOPEAN ARCHITECTURE.) It is devoid of ornament, but in one or two instances examples remain of attempts to adorn the stones forming the piers and lintel of a gateway with rude representations of animals, as in the principal entrance to the Acropolis of Mycenæ mentioned above. Grecian architecture, properly so called, was the production of a far later age, and may be traced to that

of Egypt and Western Asia, combining, as it does, the strength and solidity of the former with the more elegant features and decorative principles of the latter. The Doric, the first of the three Greek orders, assimilates more closely to the architecture of Egypt than either of the others, in its substantial and massive proportions: it is simple in character, but always conveys to the mind of the spectator a striking impression of its dignity and beauty. The Ionic order, and its ornamentation, is derived from the architecture of Western Asia, and is characterized by a greater degree of lightness in its proportions than the Doric order possesses, and the introduction of decorations in minor details. The Corinthian, the last, and by far the most elegant of the Greek orders, surpasses the Doric and Ionic orders in its elaborate adornment and symmetry of proportion; but, even in this, a similarity to the architecture of Egypt can be traced in the bell-shaped capitals of its columns and the clusters of leaves that curl outwards from its surface. But, although each order exhibits a decided step in advance of that which precedes it, as far as elegance and ornament are concerned, the three orders were uniformly characterized by beauty and harmony of proportion; and it may be said that the buildings of ancient Greece, especially the temples, were superior to those of any climate and any age, as regards simplicity of form, the purposes for which they were intended, and the habits and requirements of the people for whose use they were erected. The chief characteristics and the scale of proportions preserved in the three Grecian orders, will be found elsewhere (*see* ARCHITECTURE); and the principal parts that compose what is termed an order in classic architecture are treated under their respective headings. (*See* ARCHITRAVE, BASE, CAPITAL, COLUMN, CORNICE, ENTABLATURE, FRIEZE.) The temples of the Greeks were generally placed on a level platform, consisting of three steps rising one above another, and of greater or less depth in proportion to the height and diameter of the columns that were placed upon them. These steps were too steep to afford the means of access to the temple, and it is supposed that intermediate steps were placed at intervals along the larger ones, to allow the worshippers to pass easily from one to another, and thus to gain the level of the portico. The Greek windows and doorways, like those of the Egyptians, were narrower at the top than at the bottom, the sides inclining inwards. They were generally surrounded by a moulding, which was broken at the top of the window by a right angle, and turned outwards on either side, for a short space, in a horizontal direction, before resuming its perpendicular course, so that an architrave or lintel was formed above the window of the same width as the sill below. The doorway was always in the centre of the portico of the temple, and was carried up to a considerable height for the purpose of admitting light into the interior. The arch is never employed in Grecian architecture, which is chiefly characterized by the use of the beam supported on columns, by which an appearance of great strength and solidity is obtained. It is also marked by its strict adherence to outlines formed by horizontal lines, and lines that are vertical, or nearly so, being frequently slightly inclined inwards. It is a known principle in perspective, that straight lines proceeding to a great distance in the same direction present a slightly curved appearance to the eye

of an observer. To correct this appearance, the Greek architects carefully constructed their vertical and horizontal lines in the form of a very slight and scarcely perceptible curve, giving their columns an *entasis*, as it is termed, or a slight outward swelling near the middle; which principle of construction was effected by means of certain fixed rules. The columns, also, instead of being vertical, had a slight inclination inwards, and their pavements, and the platforms on which the temples stood, were constructed with a very slight rise in the centre. Of the three orders of Grecian architecture, the Parthenon at Athens, and the Temple of Minerva at Ægina, may be cited as the best examples of the Doric order; the Erechtheum and Pandrosium at Athens, of the Ionic order; and the choragic Monument of Lysicrates, in the same city, as the most beautiful, and almost the only existing, pure Greek specimen of the Corinthian order.

GREEK MUSIC.—Until quite a recent period it was believed that the art of music had attained to a high degree of excellence with the ancient Greeks. The inquiries and discoveries of the learned, however, have demonstrated the truth that the art of music among the old Hellenes was but in an imperfect state. The scale was not based on the octave, but on fourths, and consisted of five tetrachords each containing four consecutive sounds, the last sound of one tetrachord being the first of the next. All that are known to be in existence of the old Greek music are a few hymns and an ode by Pindar. Even these fragments are held by some scholars to be spurious.

GREEK LANGUAGE AND LITERATURE.—The Greek consists of three principal dialects—the Æolic, Doric, and Ionic; to which at a later period was added the mixed Attic dialect; and besides these there were several minor dialects. The Doric was a rough, hard, broad dialect, with long a predominant over all the other vowels. It was spoken originally in the mountains of Thessaly, whence it travelled southward, and became the language of the greater part of the Peloponnesus. The Æolic was a more ancient dialect than the preceding, but was refined at an earlier period, and was less harsh than the Doric, although also broad and open. It was spoken north of the Isthmus of Corinth (with the exception of Megaris, Attica, and Doris), in the Æolic colonies of Asia Minor, and on some islands of the Ægean sea. It contains some of the Pelagic forms, and is to be found in the fragments of Sappho, Myrtis, and Alcæus. The Ionic is the softest and most musical of all the dialects. It abounds in vowels and diphthongs, and is partial to labials and linguals. It was the earliest cultivated of the dialects, and is that of Homer, and other of the early authors, as Hesiod, Herodotus, &c. It was spoken principally by the people of Attica and the Ionian colonies of Asia Minor. The Attic sprang from the Ionic, from which at first it differed but little. It was developed principally after the Persian wars, and was brought to perfection by the poets, philosophers, and historians of Greece, who flourished after that time. It held a middle place between the hardness of the Æolic and Doric and softness of the Ionic. It was harmonious and powerful in its expressions, concise and regular in its syntax. (*See* ARTIO DIALECT.) Grammarians have distinguished between the genuine Attic and the Attic of

common life, calling the latter the "common Greek," or "Hellenic dialect;" and even the later Attic writers, posterior to the golden age of the literature, were called "Hellenes," or "common Greeks." At what time this language first began to be expressed in writing is a question of much uncertainty. According to tradition, Cadmus the Phœnician introduced the alphabet into Greece about 1500 years B.C. The ancient letters were all uncial, or what we call capital; the present cursive or round letters occur first in inscriptions of the age of Augustus, and resemble the Coptic forms. The Greeks wrote originally from right to left; afterwards alternately, the one line from right to left, and the next from left to right (called *boustrophedon*, as being the mode in which oxen ploughed in a field); and finally from left to right, as we do now. The Greek language is a branch of the great Indo-Germanic family of tongues. It is rich in roots, flexible in the formation of words, picturesque in its modes of expressing thought, highly plastic and euphonic. Its syntax is free, full of inversions, subtle and perfect, yet without obscurity. Its antiquity, its intrinsic excellence, its literature, and its influence on the progress of the fairest portion of mankind, challenge our deepest admiration.

Modern Greek.—The language of modern Greece is what is termed *Romæic*, or *Neo-Hellenic*. It differs from the ancient Greek chiefly in the formation of the tenses, and in the termination of the nouns; but the difference between the two is not greater than between the Doric and the Attic dialects of ancient Greece. The tendency of late years has been to assimilate it more and more to the ancient tongue; and a good ancient Greek scholar will have little difficulty in making out a Greek newspaper of the present day.

Greek Literature.—The origin of Greek literature is lost in the darkness of antiquity. The earliest existing monuments of it carry us back to nearly 1000 years B.C., and even then we find the art of poetical composition existing in the highest perfection. The admirable structure and the wonderful language of the Homeric poems imply a long period of antecedent culture. (See *HOMERIC POEMS*.) Of the poets previous to Homer nothing satisfactory is known. The names of many of them, as Olen, Linus, Orpheus, Musæus, and many others, are preserved to us; but their works are all lost. Hesiod, the next great epic poet after Homer, was a Boeotian, and is believed to have flourished about the middle of the 6th century before Christ. His principal poems are the "Works and Days," the leading subject of which is the various occupations and duties of life in its several relations; and the "Theogonia," containing a history of the origin of the world and the genealogies of the gods. Lyric poetry arose on the decline of the epic, and was much cultivated from about B.C. 776 to the commencement of the Persian wars. Next to the gods, who were celebrated at their festivals with hymns, their country, with its heroes, was the leading subject of their song; and in everything there was a more powerful impulse towards meditation, investigation, and labour, for the attainment of a desired end than before. The greatest of all the masters of lyric song, however, was Pindar, born at Cynoscephale, in Boeotia, in B.C. 522. Of his numerous compositions, we have only the four series of Epincian odes, i.e., odes written in commemoration of victories gained at the four national festivals—the Olympic, Pythian, Nemean, and Isthmian. The earliest writers of prose were those who first engaged in philosophical speculations. (See *GREEK PHILOSOPHY*.) In history the Ionians took the lead. Cadmus of Melitus, about 540 B.C., is the earliest; Aesilaus of Argos soon followed; then Pherecydes of Leros, Charon of Lampascus, Hellanicus of Mitylene, Dionysius of Melitus, all of whom preceded Herodotus, but are rather chroniclers than historians, in the strict sense of the term. The first great historian was Herodotus of Halicarnassus (484 B.C.), the "Father of History." The drama took its rise from the festivities

with which the country people solemnized the gathering in of the vintage, and which were accompanied with songs and dances. By degrees, variety and some measure of art were given to these proceedings. The first direct step to the introduction of the drama was made by Thespis, who added action to the chorus (B.C. 536), and who exhibited on movable stages, at the cross-ways or in the villages. He was followed by Phrynichus, who flourished B.C. 511, and who was the first to bring female characters upon the stage. Æschylus, the great perfecter of the tragic art, was born at Eleusis 525 B.C. He first substituted actors who repeated their parts by rote, in place of an intermediate speaker, who related his story extemporaneously. Sophocles and Euripides, the other great masters of Greek tragedy, flourished soon after Æschylus. Comedy was first brought into regular form by Epicharmus, who lived about 500 B.C. Cratinus, Crates, Phrynichus, and Eupolis, are well-known names in this field; but the greatest is Aristophanes. (See *ARISTOPHANES, COMEDIES AND SATIRES* OF.) The fertility and excellence of the Greek dramatic literature were most remarkable. The prose compositions that belong to this age were equally distinguished by their appropriate excellences. In history we have Thucydides (born 471 B.C.), whose work on the Peloponnesian war is not only the first specimen of what has been called philosophical history, but remains unsurpassed down to the present time. The historical works of Xenophon (born 447 B.C.), though not equal to that of Thucydides in vigour of colouring and depth of reflection, are yet adorned with every grace of narrative and description. His other works are valuable for the light they throw on the spirit of Greek institutions and the peculiarities of Greek life. Of the works of Ctesias, Philistus, Theopompus, and Ephorus, which belong to a period somewhat earlier, none have come down to us entire. In philosophy, to which the teachings of Socrates (born 468 B.C.) gave a great impulse, we have the writings of Plato (born 428 B.C.) and his pupil Aristotle (born 384 B.C.). Plato was endowed with a brilliant imagination, and loved to soar into the highest regions of speculation; while Aristotle was a student and observer, practical results being the objects of his investigations. In the same period, political eloquence, always a characteristic form of Greek eloquence, reached its highest perfection. The first rhetorical school at Athens was opened by Georgias of Leontini. Other sophists and teachers of rhetoric were Protagoras, Prodicus, Hippias, &c. Among the Athenian orators whose works are extant, in whole or in part, are Antiphon, Andocides, Lysias, Isocrates, Lycurgus, Hyperides, Æschines, Demades, Demosthenes, and Dinarchus. Mathematics was now cultivated, and geography served to illustrate history. Astronomy is indebted to the Ionic school, arithmetic to the Italian, and geometry to the Academic school, for many discoveries. As mathematicians, Theodorus of Cyrene, Meton, Euctemon, Archytas of Tarentum, and Eudoxus of Cnidus, were celebrated. Geography was particularly enriched by voyages of discovery, which were occasioned by commerce. After the death of Alexander, although literature still continued to be cultivated in Greece, yet, till the Roman Conquest, the principal seat of letters and science was Alexandria; and this period is called the Alexandrian age. Its characteristics were erudition, criticism, and the study of science; and in poetry, the only original species was the bucolic or idyl. The principal poets were Bion of Smyrna, Theocritus, Aratus, Lycophron, Callimachus, and Moschus. During the Roman supremacy, and down to the introduction of Christianity, the principal poet was Nicander; the most important prose writers—Polybius, Apollodorus, Dionysius, Thrax, Diodorus Siculus, Dionysius of Halicarnassus, and Dionysius Periegetes. From this period to the close of the Roman empire in the west, are two parallel series of writers—the Pagan, and the Jewish and Christian. Of the former, the most important are Babrius, Strabo, Epictetus, Plutarch, Dion Chrysostomus, Arrian, Pausanias, Marcus Antoninus, Aristides, Lucian, Diogenes Laërtius, Achilles Tatius, Dion Cassius, Athenæus, Herodianus, Philostratus, Plotinus, Longinus, Iamblichus; and of the latter, Josephus Philo, the authors of the books of the New Testament, Clement of Rome, Justinus, Polycarp, Irenæus, Clemens of Alexandria, and Origen. During the long period which elapsed

between the establishment of the seat of government at Constantinople, A.D. 330, and the capture of that city by the Turks, A.D. 1453, the names in Greek literature are comparatively few. They comprise the series of authors known as the Byzantine historians; the ecclesiastical and other writers, as Eusebius, Athanasius, Gregory Nazianzen, Epiphanius, Synesius, Socrates, Basilus, Georgius Pisides, Malales, Georgius Syncellus, Nicephorus, Photius, Constantine Porphyrogenitus, Leo (Philosophus), Theodosius; the rhetoricians and grammarians; a few poets, as Moschus, Quintus of Smyrna, Coluthus, Agathas; and in the 12th century, Ptochoprodromus; the romance writers—Longus, Xenophon of Ephesus, Heliodorus; the historians, as Zosimus, Procopius, Anna Comnena, and her husband Bryennius, Chalcocondylas, &c. After the capture of Constantinople, intellectual pursuits languished under the tyranny of the Turk.

Modern Greek Literature.—Since the establishment of the Greek kingdom, literature has made great progress in Greece. In the department of education, the publications have been innumerable. In history, works of distinguished merit have appeared. Many newspapers and other periodicals are now published at Athens and other parts of Greece, as well as at Constantinople, London, &c., in the Neo-Hellenic, and everywhere the people seem to be making rapid advances.

GREEN-ROOM is the name given to the actors' retiring-room in a theatre, and was originally conferred probably on account of its being painted or otherwise ornamented with green.

GREGORIAN CALENDAR. (See **CAL-NDAR.**)

GREGORIAN CHANT, *greg-or'-e-an*. About 600, Pope Gregory I. (the Great) made improvements in the musical services of the Church at Rome by substituting the scale of the octave for the Greek tetrachord hitherto in use (see **GREEK MUSIC**), but retained some of the best modes of the Ambrosian Chant. (See **AMBROSIAN CHANT.**) At first the chant was sung in unison and in notes all of the same length. The letters of the Roman and Greek alphabet were at first used to express the notes, but in course of time came a system of notation; but a stave of only four lines was used. *Gregorian tones* are a certain melodious formula made out of the union of a perfect fifth and a perfect fourth. At first there were eleven or twelve of these tones, but they were subsequently reduced to eight, which are sufficient for all the purposes of Church song. This chant is known as Plain song.

GRENADÉ, *gre-naid'* (Sp., *granado*), a missile invented and brought into use about 1594, consisting of a small shell about two or three inches in diameter, charged with powder, and fired by a fuse, or by percussion-caps placed on nipples projecting from the surface. It is thrown by the hand.

GRIFFIN, or **GRYPHON**, *grif'-fin* (Fr., *griffon*; Lat., *gryphus*).—A fabulous animal, supposed to be generated between a lion and an eagle. It is represented with four legs, wings, and a beak; the upper part resembling an eagle, and the lower having the characteristics of a lion. This imaginary animal was supposed to watch over gold-mines and all hidden treasures, and was consecrated to the sun, whose chariot some of the ancient painters represent as drawn by griffins. The griffin is found on many old medals, and it seems to have been a principal ornament of Grecian architecture. In Heraldry, the griffin is the symbol of strength, swiftness, courage, and vigilance, and it thus finds a place on many escutcheons; it is fully blazoned rampant,

although occasionally *segreiant* is thought to be its proper position. The ugly so-called griffin, set up by the corporation of London to mark the spot where Temple-Bar stood, is really a heraldic dragon. The griffin, mentioned sometimes in Scripture, was a species of eagle, called by the Latins *ossifraga*, or osprey.

GRIMM'S LAW.—A law announced by Jacob Ludweg Grimm, a distinguished German philologist (1785-1863), as regulating the interchange of the consonants in corresponding words of the different Aryan languages. He discovered that the consonants go through a cycle of changes—for instance, *f* becomes *f*, and then *b*, which has a tendency to pass into *p*, and so the cycle begins again. This law obviously applies most strictly to unwritten languages, in which there is no fixed system of orthography.

GRISELDA, *gris-el'-da*.—The name of the heroine of a popular tale of the Middle Ages, originally apparently Italian, but which was subsequently adopted by various other nations. She was originally a poor charcoal-burner, whom the Marquis Walter of Saluzzo took to wife, and then put her humility and obedience to the hardest tests; but having victoriously withstood them all, a reconciliation took place. As a tale, said to have an historical foundation, we first meet with it in Boccaccio's Decameron. Chaucer introduced the story into his "Canterbury Tales." It was translated into Latin by Petrarch in 1373, and in the 15th century it was well known in Germany. It was dramatized in Paris in 1393; in England, with the title *The Patient Griseld*, 1599; and in Germany, by Hans Sachs, in 1546.

GROG.—The rum and water served out to sailors. Admiral Vernon, who introduced the drink into the service, had been nicknamed "Old Grog," from his habit of wearing a program coat in wet weather, and the name was transferred to the beverage.

GROINED VAULTING, *groind*.—In Architecture, that kind of vaulting in which one vault cuts into another—the angle formed by the intersection being known as the groin.

GROTESQUE, *gro'-tesk* (Italian, *grotto*).—A style of classical ornament, which received the name from having been rediscovered in the excavations made in the Roman baths of Titus. The leading feature of this style is the mingling of animal and vegetable forms; and in the Renaissance period the name was extended to fanciful combinations of natural forms.

GROUP, *groop*.—In Design, the combination of figures so as to form an agreeable whole.

GUARD, *gard*.—In Military language, the name applied to a body of soldiers charged with the care of prisoners, or the protection of baggage and military stores. A guard of honour is a detachment on duty on special occasions, as a token of respect. The name was formerly applied to a man who travelled with a coach to look after the safety and convenience of passengers, and is now given to a railway official in charge of a train.

GUERRILLA, *guer-ri'-la* (Sp., a little warfare, from *guerra*, war), a name applied in Spain to armed and irregular bands of peasants or others who keep up an independent system of hostile attacks upon an enemy.

GUILDHALL, *gild-hawl*.—An important public building of the city of London, the seat

of the municipal Government, and the place of its civic meetings and festivities. Of the original Guildhall little now remains but the stone and mortar of the walls, it having suffered greatly by the great fire of 1666. It was patched up by Wren, and again in the last century by Dance, who, in 1789, erected the present. A magnificent free library and reading-room, designed by Mr. Horace Jones, was opened in November, 1872.

GUILLOCHE, OR GUILLOCHOS, *geel-totche', geel-to'-kos* (Greek, *guion*, a member; *lokos*, a snare).—In Architecture, an interlaced ornament, consisting of two bands crossing and recrossing one another, and forming a regular pattern.

GUILLOTINE, *gil'-lo-teen*.—An instrument used for the infliction of capital punishment by decapitation. In general form it usually consists of two upright posts surmounted by a crossbeam, and grooved so as to allow an oblique-edged knife with a heavily-weighted back to descend surely and swiftly when the cord by which it is suspended is let go. The instrument took its name from Joseph Ignace Guillotin, a physician in Paris, who was a member of the French National Assembly at the time of the Revolution, and proposed its adoption by the Assembly. This name, however, was bestowed upon it in derision and anticipation, and clung to it, in spite of an attempt to call it the *Louison*, after M. Louis, the secretary of the College of Surgeons, who actually presided over the construction of the machine, which Guillotin had only indicated. Its adoption was proclaimed in a decree of March 20, 1792. It is a common error to suppose that Dr. Guillotin fell a victim to his own invention. To attribute the invention of the guillotine to Dr. Guillotin is also a mistake. It had been in use for centuries in Germany, in England, Scotland, and Italy. Its use at Halifax, in England, is traced as far back as the reign of Edward III., and the last criminals who suffered by it were executed in 1650. In the museum of the Antiquarian Society of Edinburgh, a rudely-shaped guillotin, called "the Maiden," is still preserved. A machine was also used by the Italians which closely resembled the guillotine, and *Mannia*. The guillotine was not, therefore, a new instrument when it was adopted by the French. After being in exercise for a few months, it became the delight of the Parisian mob; and not of the mob only, for it was canonized in the philosophical rubric as *la Sainte Guillotine*, and, in miniature, became the model of ornaments for women and toys for children. During the period of one year and one month, while the guillotine stood in the space now known as la Place de Concorde, 1,256 persons were executed by it. Afterwards it was removed to the Barrière du Trône, where it despatched 1,270 persons of both sexes. The guillotine is still the instrument of capital punishment in France.

GUITAR, *git-tar'* (Fr., *guitare*), a musical stringed instrument, supposed to have originated in Spain, where it is very common; indeed, so much so, that there are few, even of the poorer classes, who cannot play on it. About the middle of the last century it became so popular in England as to greatly injure the sale of other instruments. The guitar is of a somewhat oval form, having a neck similar to that of the violin. The strings—six in number—are stretched from

the head to the lower end, passing over the sounding-hole and bridge. The sound is produced by twitching the strings with the fingers of the right hand.

GULES, *gulez*, in Heraldry, the term used to denote a red colour in armorial bearings. The origin of the term is much disputed. In engravings of coats-of-arms this colour is expressed by parallel lines crossing the field in a perpendicular direction.

"GULLIVER'S TRAVELS," *gul'-li-ver*.—The title by which Dean Swift's masterpiece is most generally known. The full title is "Travels into Several Remote Nations of the World. By Samuel Guilliver, first a surgeon and then a captain of several ships." The supposed author professes to describe four voyages—1, to Lilliput, the country of pigmies, only four or five inches high; 2, to Brobdingnag, the inhabitants of which are giants of enormous size, so that Gulliver bears the same proportion to them that the Lilliputians did to him; 3, to Laputor, Balnibarbi, Luggnagg, Glubbdubdrib, and Japan; 3, to the country of the Houyhnhnms, where horses were the superior race, and human beings, or Yahoos, the most degraded and revolting creatures. It will be noticed that Japan is the only real name in the list, and that country is only incidentally mentioned as touched at on the return voyage. The attraction of the book to the general reader is almost confined to the Lilliputians and Brobdingnagians. The others contain much subtle satire of the scientific men and politicians of the time; and the voyage to the country of the horses was painful for the savage cynicism and contempt for humanity exhibited by Swift. The description of the earlier voyages abounds in satire of political persons and social customs, but it is generally good tempered and highly humorous. The book appeared in 1727, eight years after the appearance of the first part of Defoe's "Robinson Crusoe;" and the effect of the style of that remarkable author on Swift is very noticeable. There is the same literalness of style, the same attention to accuracy in minute details which makes the fiction appear so truthful, and the opening of the first chapter in which Gulliver relates the incidents of his early life might have been written by Defoe himself. The book has gone through innumerable editions. Sir Walter Scott said of it, "Perhaps no work ever exhibited such general attractions to all classes. It offered personal and political satire to the readers in high life, low and coarse incidents to the vulgar, marvels to the romantic, wit to the young and lively, lessons of morality and policy to the grave, and maxims of deep and bitter misanthropy to neglected age and disappointed ambition." Lord Jeffrey wrote in the *Edinburgh Review*, "The idea of making fictitious travel the vehicle of satire as well as of amusement is at least as old as Lucian, but has never been carried into execution with such success, spirit, and originality as in this celebrated performance."

GUN, *gun* (Ang.-Sax.).—An instrument consisting of a barrel or tube, of iron or other metal, from which balls, shot, or other missiles are discharged by the explosive force of gunpowder. The larger species of guns are called cannon; the smaller species are called rifles, muskets, carbines, fowling-pieces, &c.

GUN, AIR. (See AIR-GUN.)

GUSSET, *gus'-set*.—A piece of armour intended to protect the part where the defences of the arm and breast left a vulnerable gap.

In Heraldry, a gusset, represented by a line extending diagonally across the upper part of the shield, and then descending perpendicularly to the base, is an abatement, or mark of disgrace for unknighly conduct. In some cases, a knight had behaved so ill that his shield was marked with two gussets.

GUTTURALS, *gut'-tu-rals* (Lat., *guttur*, the throat), is a name given to certain sounds formed in the throat or back part of the mouth. In English there are, properly speaking, no gutturals; but the palatals, *g* and *k*, are nearly allied to them. In the Spanish language alone, of those derived from the Latin, are gutturals common. In German, the guttural *ch* is very common, as it was also in Greek; and it occurs in Scotch in such words as *loch*. The Arabian language is full of gutturals.

GYMNASIUM, *jim-nas'-ze-um* (Gr., *gymnos*, naked).—The name given by the Greeks to those places in which their youth exercised themselves naked. The gymnasia of the Greeks and Romans were looked upon as an important part of their educational systems. The Greeks, indeed, devoted more time to the gymnastic training of their youths than on all the other departments of education. There were three public gymnasia in Athens—the Academia, Lyceum, and Cynosarges, besides several smaller private ones. In these gymnasia there appear to have been ten gymnasiarchs, or superintendents, with many inferior officers. The gymnasium of the ancients was not one building, but rather a group of edifices, which could contain a vast number of people. In Rome, during the Republic, there were no buildings which could be compared with the Greek gymnasia. Under the Cæsars, the public baths bore some resemblance to them, but the gymnasia may be said to have disappeared with the thermæ.

Modern Gymnasia.—The name is employed, in the present day, to designate the higher class of schools in Germany—those that are intended to be immediately preparatory to the university. The gymnasia differ from other schools, which are intended to give a suitable education for such as are destined for business or trade, in having as their object the bestowing of a mental and scientific education on such as are intended for the universities. The course of study usually extends over six or seven years.

GYMNASTICS, *jim-nas'-tiks*.—Those exercises of the body and limbs which tend to invigorate and develop their power. Gymnastic games are of very ancient origin. It is only since the commencement of the present century that gymnastic exercises have been revived as a science. In 1806, the revival began in Prussia, when gymnasia were opened, and the science became so popular that it rapidly attracted attention. Sweden imitated Prussia; and from that time the practice of gymnastics has formed a leading feature in the course of education in both countries. As the gymnasia in Prussia began to be the scenes of political meetings of a kind offensive to the government, they were abolished in 1818. The practice of gymnastics was, however, kept up by the troops, and with such evident success that a similar course of training was adopted in the French army in 1844. England was late in recognising the advantages of this kind of training; but the troops at Aldershot and other camps are now regularly instructed in the science. Gymnasia have, however, been long

in use in private life in this country. The gymnastic exercises adopted by the pugilists and wrestlers of the present day in their course of training fail to produce on the mind or body any desirable effect; and the same was observed in the condition of the athletes of old. But gymnastic exercises, practised under proper control, must act beneficially, both mentally and physically. In general, all methods of instruction are divided into a number of courses regularly graduated, beginning with elementary and particular movements, so as to render every part of the body pliant, and to develop the muscles. These exercises are called elementary gymnastics; while exercises in leaping, vaulting, climbing, swinging, walking on stilts, &c., are called applied gymnastics. In ordinary gymnasia, the principal apparatus employed consists of the horizontal pole, the parallel bars, the masts or poles, the ropes, the triangle and trapeze, the ladder, the wooden horse, the inclined plane, and the flying-course, or giant's stride. The national games of England by themselves contain nearly all the advantages to be got by gymnastic exercise. These games, although not all, perhaps, originally belonging to this country, have been adopted, and have become peculiarly national through their popularity and regular improvement.

GYPSIES, *jip'-seez*, a term derived from a corruption of the word Egyptians, and applied to a wandering race of people, who are found distributed over many countries of Europe and Asia. A great amount of speculation has been indulged in as to their origin; but from linguistic and other evidence, it seems to be established that the north of India was their first home. Several writers of great ability have investigated the subject, especially Mr. George Borrow and Mr. Leland, and the latter, in his recently published works, "The English Gypsies and their Languages," and "The Gypsies," has possibly accumulated all the information that can be obtained on the subject. From these sources we gather that the Gypsies are representatives of one of the tribes that, six or seven hundred years ago, came from India into Europe. Their language, which they have carefully preserved, keeping it very free from the slang of the ordinary tramps, we are told "carries the philologist back to a day before the Sanscrit, of which it is said to be 'an elder, though vagabond, sister.'" It is so full of old Hindi words that the more intelligent Gypsies can vaguely understand a conversation in Hindustani, and declare that 'it is Rommanis, though very bad Rommanis.'" Rommanis, or Rommany, is their name for their language and their race. They seem to have migrated into Europe from the East at the beginning of the 12th century, and the earliest known notice of them occurs in a German paraphrase of the book of Genesis, by a German monk, about 1122, who mentions "Ishmaelites and braziers," noted for their cheating dishonest tricks. A much larger migration took place about two centuries later, probably as a result of the invasion and conquests by Tamerlane; and many of them settled in Hungary. They appeared in many parts of Germany, in Switzerland, and Italy. One Swiss historian, Stumpf, says that 14,000 of them appeared at Basel in 1422, but that is probably a considerable exaggeration. They first appeared in Paris in 1427, representing themselves as Christian penitents, driven out of Egypt by the Saracens. They

were more than 120 in number, and, according to a French writer, "They had their ears pierced, from which depended a ring of silver; their hair was black and crispy, and their women filthy to a degree, and were sorceresses, who told fortunes." They gave various accounts of themselves, saying among other things, that they had been driven out of Egypt by the Saracens, that they were condemned to roam through the world as a punishment for their want of hospitality to Joseph and Mary; also that they had been once Christians, but having renounced the faith, the Pope had imposed on them a wandering life as a penance. (A modern writer, Mr. Roberts, it may be noticed, believes them to be the descendants of the ancient Egyptians, and their wanderings to be the punishment predicted by Isaiah, Jeremiah, and Ezekiel, for the sins of their forefathers.) They and their people, who arrived in great numbers, obtained permission to remain in the kingdom; but after a short while, on account of their idleness and depredations, terrible laws were enacted, in order to suppress them and drive them from the country. The name of "Bohemians" was given to them by the French, probably because a larger number of them had come into France through Bohemia. Many, in consequence of the severity shown towards them, were driven back into the woods and forests of the same country; others passed into Germany and Hungary; while bands of others swarmed over the Pyrenees, and poured down upon the plains of Spain. The names by which the gypsies are known differ with the country in which they are found, although, with one or two exceptions, not materially. In Russia they are styled *Zigani*; in Turkey and Persia, *Zingarri*; in Germany, *Zigeuner*; in Spain, *Gitanos*; in Italy, *Zingani*; all which words apparently spring from the same root, probably "*Zincali*," a term by which these people sometimes designate themselves, and the meaning of which is supposed to be "the black men of Zend, or Ind." The *Zigani* are found in most parts of Russia. Their principal employment is trafficking in horses and curing the diseases in cattle. In Moscow, however, they have given up their wandering habits, and inhabit stately houses, and go abroad in elegant carriages, being behind the higher orders of the Russians neither in appearance nor mental acquirements, and are especially noted for musical ability. The females are celebrated for their vocal powers. Mr. W. R. S. Ralston says, "All who have heard their women sing are enthusiastic about the weird witchery of their performances." The *Czigamy*, or Hungarian gypsies, live in rags and filth, but are merry, and fond of music. They are addicted to horse-dealing, and are tinkers and smiths in a small way; the women tell fortunes, and both sexes are incorrigible thieves. In Wallachia and Moldavia, they call themselves

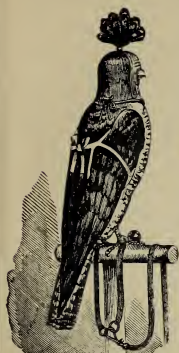
Roumouni, and in all countries the gypsies style themselves, and the language which they speak, *Rommany*. In the gypsy language, *Rom* means a husband, and *Rommany* the sect of the husbands. Although no country appears less adapted for this wandering life, which seems so natural to these people, than England, it is nevertheless true that they do exist here, and the covered cart and little tent of the *Rommany* seldom remain more than a day or two in one place. When the gypsies first arrived in England, they were much persecuted. After a time their persecutors got weary of pursuing them, and at present they are considered in some degree as a privileged people. Although their way of life is unlawful, it is connived at, the law of England having discovered, by experience, that it is inefficient to restrain them from their habits. The male gypsies in England are dealers in horses, and sometimes employ their idle time in mending the tin and copper utensils of the peasantry; the females tell fortunes. In all countries the gypsies are very handsome when young, but hideously ugly when they grow old. In no land is the appearance of the gypsy so prepossessing as in this country. They have tawny skins, black hair and eyes, graceful slender forms, and very expressive features. They exhibit a remarkable liking for bright and showy colours in dress. The dialect of the *Rommany* which they speak is tolerably pure, but mixed with English words. Dabbling in sorcery has always been a profession of the gypsies in all times and countries, and is especially the province of the females. They are divided into classes or tribes in England, each of which acknowledges a head, sometimes a female, popularly known as the queen. Considerable numbers of gypsies have found their way to America, where the vast area of the country is appreciated by these born wanderers. They are apparently prosperous, and do not beg as many of the English gypsies do. This strange people have no inherited religion, profess no creed, maintain no service, and appear to have no idea of a God. A recent writer describes them as "natural Positivists." They render a sort of worship to the dead, and abstain from food, drink, and other indulgences as a kind of offering to the memory of the dead. Mr. Leland gives instances of men who for years did not touch their favourite drink, out of regard to the memory of a brother; others, in similar circumstances, have abandoned tobacco.

GYROMANCY, *jir'-o-man-se* (Ger., *guros*, a circle, and *manteia*, a prophecy), is a kind of divination performed by a soothsayer, by means of a circle. The soothsayer usually describes a circle variously marked with letters, and then walks round it with various ceremonies, saying magic words and making mysterious motions, the more effectually to deceive the uninitiated.

H.

H is the eighth letter and sixth consonant of the English alphabet. It may, however, be said to be a semi-vowel rather than a consonant, being pronounced merely by a forcible emission of the breath. (*See* **ASPIRATE**.) The Greeks and Latins never, therefore, considered it as a consonant, but only as a breathing; and in the language of the former there was no distinct letter for it, but

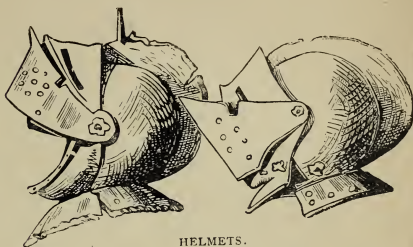
merely a sign. In Latin, many words were written indifferently with or without an *h*; as *arundo*, *harundo*. In those languages in which *h* is considered a consonant or pronounced hard, it is classed with the gutturals. It is a very delicate letter, and is frequently not sounded at all—the tendency being, as a language gets softened, to make it always lighter. The Italians have almost



HAWK DRESSED.



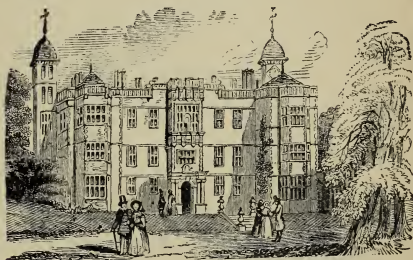
JESSES.



HELMETS.



THE LURE.



HOUSE, ELIZABETHAN.

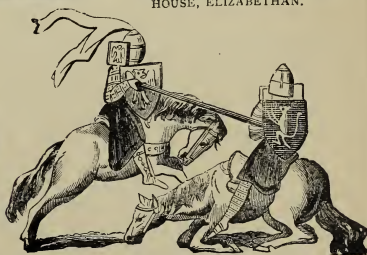


THE HOOD.

HAWKING.



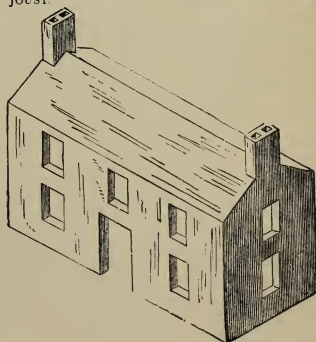
HORN



JOUST



ILLUMINATED LETTER.



ISOMETRICAL PERSPECTIVE.

entirely banished *h* as an independent letter out of their language. *H*, as a Latin numeral, denotes 200, and with a dash over it 200,000.

HACKNEY-COACH.—A vehicle which, before the introduction of cabs, was let for hire in the London streets. The name is not, as some persons suppose, taken from the suburb Hackney, but from the French *haquenés*, "let out for hire."

HAKLUYT SOCIETY, *hak'-luit*, the name of a society formed in the year 1846, for the purpose of printing in English, for distribution among its members, rare and valuable voyages, travels, and geographical records, including the more important early narratives of British enterprise. This society was named after the celebrated old English geographer and historian, Richard Hakluyt, or Hackluyt.

HALBERT, or HALBERD, *hal'-bert* (Fr., *hallebarde*), an offensive weapon consisting of a shaft about five feet long, made of oak, having a steel head resembling a bill-hook. It was much used formerly, but is seldom or ever now seen, except in some Scotch boroughs, where it is employed by the civil officers who attend the magistrates in processions and on other public occasions.

HALCYON DAYS, *hal'-se-on*.—A term applied by the ancients to the seven days which immediately precede and follow the shortest day, from the circumstance that the halcyon or kingfisher selected that period for incubation, and they believed that, on that account, the weather was always remarkably quiet about that time. Hence the phrase "halcyon days" has passed into a proverb, as denoting times of peace and tranquillity.

HALL, *hawl* (Sax., *heal*; Ger., *saal*; Lat., *aula*; Fr., *salle*), the principal apartment in the castles and mansions of the Middle Ages, which was used on all occasions of ceremony, and in which the meals were served. Some of the palaces of the early Saxon kings appear to have consisted of little else than the hall. The earliest existing specimens are of the 12th century; and though none of them retain their roofs or fittings, it is apparent that several of them were divided into three alleys, by rows of pillars and arches. In these halls the king, together with his courtiers and all his retainers, dwelt, sat at the same table, and round the same hearth. The Normans built halls very similar to those of the Saxons; and with few modifications, similar buildings were erected until the 14th century. The hall held its place as the chief room of the house, in which the king or lord of the manor administered justice, gave audiences, or received and entertained his guests. From the 14th century downwards, numerous examples of large and stately halls still remain, the finest being Westminster Hall. There is a noble hall at Hampton Court, and there are fine examples in several of the colleges at Oxford and Cambridge. The hall originally was essentially a part of feudal architecture. At the upper end, a portion of the floor, called the dais, was raised one or two steps above the rest, on which was placed the principal table, at which the host and superior guests sat.

HALLOWEEN, HALLOWEVEN, or ALLHALLOW EVEN, *hal-to-een'*.—The eve, or vigil, of All-Saints' Day, which is the 1st of November. It was formerly customary in some parts of England to crack nuts, duck for apples in a tub

of water, or catch at them when stuck upon one end of a kind of hanging beam, at the other extremity of which is fixed a lighted candle, and that with the mouth only, the hands being tied behind the back. In Scotland, these ceremonies were of a more superstitious character. Young people believed that, by employing some particular charm, they could see their future husbands and wives. Burns describes the amusements in his poem "Halloween."

HAMILTONIAN SYSTEM, *ham-il-to'-ne-an*.—A system of teaching languages, after Mr. James Hamilton (1769—1831), an English merchant, who afterwards took to teaching languages. His system is simply this:—to have some simple book in the language about to be learned, usually the gospel of St. John, with an interlinear translation, so literal as to show at once the number and case of the noun, as well as the mood, tense, and person of the verb. Each word has under it its exact English equivalent, and in its primary signification. The system has the advantage of bringing the pupil at once to a practical acquaintance with the rules and idioms of the language; by which means his attention is awakened and kept up, while, at the same time, he is acquiring a knowledge of words in the best possible manner, by having the foreign word, with its English equivalent, presented through the eye to the mind, together, or at the same instant.

HAMLET (Fr., *hameau*, a village; or Sax., *ham*, home).—A little village, or a small cluster of houses.

HANDICAPPING, *hand'-i-kap-ping*.—A term used by sporting men to describe the mode of equalizing competitors in a race or game. In horse racing, the best horses carry extra weights; in foot races, the weaker runners have a certain start, and so on. The handicapper, or person who arranges the conditions, must have large experience and a keen perception of merit.

HANDWRITING, *hand'-ri-ting*, in Law, is, in general, proved by a witness who has seen the person write. The mark of a person who cannot write is proved by a person who has seen him make his mark, and is acquainted with it. In some circumstances, as where the party is resident abroad, the evidence of one who has frequently received letters from him would be admitted, though he had never seen him write. Evidence of handwriting by comparison is inadmissible, except where the writing acknowledged to be genuine is already in evidence in the cause, or the disputed writing is an ancient document. This rule does not, however, apply to the court or the jury.

HANGING GARDENS. A series of magnificent gardens laid out on elevated terraces at Babylon, and stated by the Greek romantic historians to have been constructed by the mythical Queen Semiramis. According to Diodorus and Strabo, the form of these gardens was square, each side being about 400 feet in length; so that the area of the base was nearly four acres. They were made to rise with terraces constructed in a curious manner, above one another, in the form of steps, and were supported by stone pillars to the height of more than 300 feet, gradually diminishing upwards till the area of the superior surface, which was flat, was reduced considerably below that of the base. It is most

probable that these gardens were constructed in the latter days of the Babylonish empire by the magnificent King Nebuchadnezzar, to gratify his Median wife, Amigitis, that she might not be afflicted with a longing for her native mountain scenery.

HAREM, *ha-reem'* (Arab., the sacred or inviolable), is the name generally given among Mohammedans to those apartments which are appropriated exclusively to the female members of a family. It is also applied to the holy cities Mecca and Medina, and especially to the mosque at Mecca, Mesjid-el-harem.

HARLEIAN COLLECTION. (See BRITISH MUSEUM.)

HARLEQUIN, *har'-le-kwin* (Ital., *arlecchino*; Fr., *arlequin*).—The name of a personage who figures largely on our stage in the pantomimes, and who has been borrowed from the Italian. The character of the ancient harlequin was a mixture of extravagant buffoonery with great corporeal agility, while his expressions were characterized by impudence, drollery, satire, and often indelicacy. His character, however, changed about the middle of the 16th century. He became a simple, ignorant servant, who assumes all colours, and is easily induced, through fear or interest, to commit all sorts of tricks or knaveries. He excels in extempore sallies, and tries very hard to be witty, even at the expense of being malicious. In this country, harlequin is a graceful and active dancer in a pantomime (see PANTOMIME); the buffoonery and tricks being allotted to the clown.

HARMONICA, *har-mon'-e-ka*, a musical instrument now seldom or ever used, which derived its origin from the musical glasses. Its sounds are produced from glasses blown as nearly hemispherical as possible, each having an open neck or socket in the middle, into which a perforated cork is fitted. The largest glass is nine inches in diameter and the smallest three. Between these there are twenty-three different sizes. The glasses are placed on a round iron spindle (fixed horizontally in the middle of a box, and made to turn on brass gudgeons at each end), one within the other, each leaving about an inch of its brim above that of the other. The spindle is turned by means of a foot-wheel, and the tones produced by rubbing the exposed parts of the glasses with the ends of the fingers damped and rubbed with chalk, to bring out the tone more readily. The glasses also should be occasionally wetted with a sponge and clean water. Many attempts were made to play it by keys, but none have succeeded.

HARMONIUM, *har-mo'-ne-um* (Gr.), a musical instrument of modern invention, bearing some affinity to the organ, but, unlike that instrument, made upon a principle technically termed the "free vibrating reed," which was long supposed to have been a European discovery, but is now ascertained to have been known in China long before it was heard of in Europe. It consists of a brass plate containing an oblong slit, having a thin elastic tongue fixed to one end, in such a manner, and so exactly fitting into the slit, as to completely close it, but so that it will, upon the pressure of the wind on the free end, pass either inwards or outwards, without touching the end or sides. Debain, of Paris, was the first to construct a keyed instrument upon the

free-reed principle of a really useful character. Several attempts had been made, but all had more or less failed, until Debain invented the harmonium. The wind is supplied by means of bellows with two feeders, which the player moves alternately with his feet. Some harmoniums are made with two rows of keys, increasing the musical value of the instrument. (See ORGAN, AMERICAN.)

HARMONY, *har'-mo-ne* (Gr., *harmonia*), the agreement of two or more united sounds. It may be either *natural* or *artificial*; the former consisting of the harmonic triad, or common chord, and the latter of a mixture of concords and discords, bearing relation to the harmonic triad of the fundamental note. In modern music the term is employed to designate a union of melodies, a succession of combined sounds, composed of consonant intervals, and moving according to the stated laws of modulation. Harmony is the combination of sounds and the succession of chords, and may be said to combine the life and soul of music. The ancients knew very little of harmony, and it has not yet been introduced into the music of the Chinese and other Eastern nations. It is a comparatively modern invention. The laws regulating the succession of chords were at first rather arbitrary. (See CHORD.) Harmony may be divided into simple and compound. Simple harmony is that in which there is no concord to the fundamental above an octave. Compound harmony is that which to the simple harmony of an octave, adds that of another octave. From the union of harmony and melody music is formed. Although melody may exist without harmony, harmony cannot exist without the melodious arrangement of each of its several parts. (See MELODY.)

HARMONY OF THE SPHERES.—Many of the ancient philosophers held that the regular movements of the various heavenly bodies through space produced a kind of harmony, which they called the "harmony of the spheres." Shakespeare, in the *Merchant of Venice*, makes Lorenzo say to Jessica,—

"There's not the smallest orb which thou behold'st,
But in his motion like an angel sings,
Still quiring to the young-eyed cherubim."

HARP, *harp* (Sax., *hearpa*), a stringed instrument of music, which may be traced, under various forms, to the remotest ages of antiquity. It was held in high veneration amongst the Celts, and although it has disappeared from the Highlands of Scotland, may still be found amongst the Welsh and Irish. In Ireland, its former prevalence has led to its adoption as the national symbol. There is little doubt that it was brought to great perfection in Egypt, as its figure has been found drawn on buildings of the great antiquity. In the Bible we find the harp continually mentioned, while its invention is ascribed to Jubal, seventh only in descent from Adam. There are three kinds of harps now known—the Italian harp, the Double, or David's harp, and the Pedal harp. The first of these is very imperfect, and seldom or ever used. The double harp is a better instrument, of a triangular form, having gut strings and a sounding board; but it was not until the invention of pedals, in 1794, that this instrument became really useful. For its present improved and nearly perfect state we are indebted to M. Sebastian Erard, of Paris, who

patented a harp with seven pedals in 1794, this being a single-action harp. The pedals only effecting one change on the strings, he produced, in 1808, a double-action harp, the pedals of which have two actions. This instrument is tuned in the key of C flat, but may, by fixing the pedals in the first groove, be at once transposed to that of C natural, while by fixing them in the second, it is transposed into that of C sharp. The compass of this instrument is from E double below the bass to E in altissimo.

HARP AND CROSS MONEY.—Money coined at the time of the Commonwealth, having on one side a shield bearing the arms of St. George, and on the other a shield bearing a harp. Money of this kind to the amount of about £70,000 was coined.

HARP, ÆOLIAN. (See ÆOLIAN HARP.)

HARPSICHOORD, *harp'-se-kord*.—A musical instrument resembling a grand pianoforte in shape, formerly much used, but now entirely superseded by the piano. The date of its invention is unknown, although it is supposed to have been about the 16th century; it was not, however, introduced into England until the 17th. It consists of a mahogany or walnut-wood case, within which is the belly or sounding-board, over which the strings are stretched, supported by bridges. The sound is produced by small pieces of crowquill or hard leather, which project from the jacks (small pieces of wood that stand upright between the strings), and which, when the instrument is in use, are pushed upwards by the keys till they touch the strings, causing a brilliant but rather harsh sound. The great fault in the harpsichord is its deficiency of any means of modification in respect to piano and forte notes.

HARPY, *har'-pe*.—In Greek Mythology, a creature considered to be a minister of the vengeance of the gods. They are described as winged monsters of hideous and hungry aspect, filthy, and contaminating everything they touched.

In Heraldry, a harpy is represented as having the head and breasts of a woman and the body of a vulture.

HARRI-KARRI, *har'-re-kar'-re*.—A term meaning "happy despatch," applied by the Chinese to the mode of suicide by ripping up the belly, which officials, who had committed any offence, were ordered to commit.

HARVARD COLLEGE, *har'-vard*.—The oldest college of the United States, is situated at Cambridge, three miles from Boston, Massachusetts. It was founded in 1636, only six years after the establishment of this region by the English. Afterwards, in 1639, the name, which was first Newtown, and then Cambridge, was changed to Harvard, in consequence of a liberal endowment of about £700 left to it by the Rev. John Harvard, in 1638. It has received various other public and private grants. The government of the college is vested in the president and fellows, and a board of overseers. There are 56 professors and 14 tutors, and about 1200 pupils, of whom more than half are undergraduates, the others attending the professional courses, of which there are four—law, science, medicine, and theology. Of late years, the standard of education has been greatly raised and extended, and a scientific branch has been

endowed, for the benefit of persons who do not wish to pursue the full course; and the institution at present enjoys a good name for its care and thoroughness in teaching. The college library contains upwards of 140,000 volumes.

HARVEST, *har'-vest* (Sax., *harfest*), the period at which any crop is reaped, although it is more generally applied to the crops of corn and hay. Harvest time is generally a very joyous time, and great mirth and festivity celebrate the end of the husbandman's labours. The *harvest-home* is kept when the last of the crop has been carted into the farmer's storehouse, and the name is applied to the feast which the employer gives to all his "hands" at the termination of their labours.

HATCHMENT.—The funeral escutcheon, setting forth the rank and circumstances of a deceased person. It is in the form of a lozenge, with the arms of the deceased in the centre. The hatchments, or achievements, exhibit peculiarities, in denoting whether the deceased was a bachelor, an unmarried lady, a husband, wife, widower, or widow. In the case of a husband or wife, one half of the shield is on a black ground. On the decease of the last of a family, a death's head surmounts the shield in place of a crest.

HAUBERK, *haw'-berk*.—A coat of mail, sometimes reaching only to the neck, but sometimes extended so as to cover the head.

HAUTOBOY, OR **OBOE**, *o'-boy* (Fr.), a musical wind instrument of the reed kind, which at a very early date took its place as one of the essential instruments of the orchestra. It consists of a tube, made of box, ebony, or coccoo-wood, about twenty-one inches long, narrow at the top, but gradually widening towards the lower end or bell, and divided into three pieces or joints. In the upper and middle ends are holes, by stopping or opening which with the fingers the natural scale is formed, the intermediate semitones being produced by means of the keys, seldom less than fifteen in number. The tone of the hautboy is rich and sweet, and is particularly adapted to *piano* and *dolce* passages. This term is also given by organ-builders to a reed stop.

HAVERSACK, *hav'-er-sak* (Fr., *havesac*), is a strong bag, made of some coarse material, used for carrying provisions on the march.

HAWKING, *hawk'-ing* (Sax., *hafoc*, a hawk), the art of training and flying hawks, in order to take other birds. The practice of teaching one bird to fly at and catch another is frequently called falconry, and is of high antiquity. Amongst the Asiatics the sport seems to have been practised from the earliest period. From the East the art gradually spread over Europe. From the Heptarchy to the days of Charles II., hawking was a favourite amusement of the English. A person of rank scarcely stirred out of doors without his hawk on his hand; and in old paintings and seals this is the criterion of nobility. In the Bayeux tapestry, Harold, when setting out on a most important embassy to Normandy, is represented with a bird on his hand and a dog under his arm. The expenses of the sport were sometimes very great. Sir Thomas Monson, in the reign of James I., is said to have given £1,000 for a cast of hawks. The laws with regard to the protection of the birds were also

very rigorous. Edward III. made it felony to steal a hawk; and to take its eggs was, even in a person's own ground, punishable with imprisonment for a year and a day, besides a fine at the king's pleasure. With these slight restrictions, hawking remained a favourite amusement till the reign of Queen Elizabeth, when the imprisonment was reduced to three months; but the offender had to find security for his good behaviour for seven years, or lie in prison till he did so. The birds most generally used in hawking were the peregrine falcon and the ger-falcon. When under a year old, hawks were called *red hawks*, on account of their plumage being dusky red in colour. When over a year old, the hawk was called a *haggard*. In some cases hawks were made the tenures by which several of the nobility held their estates from the crown. Sir John Stanley and his heirs held a grant of the Isle of man from Henry IV., by paying two falcons to the reigning sovereign on the day of coronation. The amusement had almost a language of its own. Every part of a hawk has its distinct name. The legs, from the thigh to the foot, are called *arms*; the toes, the *petty singles*; the claws, the *pounces*; the wings, the *sails*. The crop is called the *gorge*; the upper part of the bill, the *beak*; the lower part, the *clap*; the yellow part between the beak and eyes, the *cere*, and the small holes in it, the *nares*. The furniture, the leathers, with bells fastened on the legs, are called *bevis*; the leathern thong by which the hawk is held is called the *leash*; and the little straps fastening them to the legs, the *jesses*. A head-covering, in order to keep the bird in the dark, is called a *hood*. The *tur* is a figure or resemblance of a fowl made of leather and feathers; and the resting-place when the hawk is off the falconer's hand, the *perch*. When the bird flutters on the hand or perch, it is said to *bate*; when standing too near, hawks fight with each other, it is called *crabbing*; when the young ones quiver in obedience to the elder, it is called *cowering*. The seizure of its prey by a hawk is called *binding*; when it pulls off the feathers, it is said to *plume*; when it forsakes the proper game, and flies at magpies, crows, &c., it is called *check*. The fowl or game flown at is called the *quarry*, and the dead body of a fowl killed by the hawk is called the *pet*. The making of a hawk tame and gentle is called *re-claiming*; the bringing one to endure company, *manning*; and a hawk well enough trained to set an example to a young one is called a *make-hawk*. George, earl of Orford, tried to revive hawking in the latter part of the 18th century; and, in Yorkshire, Colonel Thompson had a hawking establishment at a later period. As a general diversion, however, in this country, the sport has entirely gone out, although now and then occasional attempts have been made to revive it.

HAZARD, *haz'-ard*.—A game at dice started by one player throwing the dice for a *main*, which must be above 4 and not more than 9. The caster then throws his own chance. If the throw is the same as the main, it is a *nick*, and the caster wins from the *setter*, or other player who betted against him. He also wins if under certain conditions he can repeat a throw (not a *nick*) before the main turns up; but if he fail to do so, the setter wins. It is reckoned that the setter has slightly the advantage of the caster. The players calculate probabilities, and arrange

the bets accordingly. Immense sums of money have changed hands over this game, and large estates have been staked on "the hazard of the die."

HECATOMB, *hek'-a-toomb* (from Greek, *hekatón*, a hundred; *bous*, an ox), a sumptuous or magnificent sacrifice; originally consisting of the sacrifice of a hundred beasts of the same kind, at a hundred altars, by a hundred priests or sacrificers. Pythagoras is said to have sacrificed a hecatomb of a hundred oxen to the muses, in joy and gratitude for his having discovered the demonstration of the 47th proposition of the first book of Euclid. Although a true hecatomb consisted of a hundred oxen, yet, in the time of Homer, the word had lost its real etymological meaning: it merely meant a great public sacrifice. Thus, in the *Iliad*, an allusion is made to a hecatomb of twelve oxen; to another of oxen and rams; and to another of fifty.

HEGIRA, or **HEDJRAH**, *hej'-i-rah* (Arab., *hajara*, I remove), the era from which Mahometan nations commute all chronological events subsequent to the flight of Mahomet from Mecca to Medina, on the night of the 12th of July, 922. The first day of the first year of the of the Hegira is, therefore, the 16th of July in that year. As there are only 354 days in the Mahometan year, it follows that thirty-three of their years are very nearly equivalent to thirty-two years according to our system of reckoning. We must, therefore, in bringing any date reckoned from the Hegira to its corresponding date according to the Christian era, subtract three years for every hundred years contained in it, or, to speak more accurately, one year for every thirty-three years, and then add to the result the number of the year of our Lord in which the hegira took place, less one; and in converting a date of the Christian era into its corresponding date reckoning from the Hegira, we must reverse the process, subtracting the number of the year in which the Hegira took place, less one, from it, and adding to the result one year for every thirty-two years contained in it.

HEIMSKRINGLA, *himez'-kring-la* (Icelandic, the circle of the earth), the name given to the greatest work written by Snorro Sturleson, the last of the northern Scalds, who lived in the beginning of the 12th century. He himself called the book the "Saga, or Story of the Kings of Norway," and the term *heimskringla* was bestowed upon it on account of that word being the first prominent one in the old Scaldic manuscript of Snorro. The work is a connected series of memoirs of the kings and mighty men of the Scandinavian peninsula, Denmark, and England, from an almost mythological period down to his own time. Historical incidents, speeches, and anecdotes, constitute the work, interspersed with rude snatches of Scaldic song. In 1230, Sturla, the nephew of Snorro, made a copy of the *Heimskringla*, which is considered to be the most authentic text of the work. As late as 1567, copies were made of this manuscript. In 1844, Samuel Laing translated the *Heimskringla* into English, with a preliminary dissertation on the intellectual and social condition of the Northmen.

HEIRLOOM, such goods and personal chattels as, contrary to the nature of chattels, go by the special custom of a particular place to the heir, together with the inheritance, and not to

the executors or administrators. The word "loom" is of Saxon origin, and signifies limb, or member; an heirloom being thus a limb or member of an inheritance.

HELIX, *he'-liks* (Gr., *helix*, a wreath or circumvolution, from *helissein*, to wind round, environ).—Part of a spiral line, consisting of an entire turn of the thread of a screw round the central cylinder. In Architecture, the term is applied to the small volutes introduced under the flowers of the Corinthian capital, which are also called *urillæ*. In Anatomy, the auricle or outer part of the ear is so called; and, in Zoology, the snail, from the peculiar shape of its shell, which consists of a single spiral valve.

HELL-FIRE CLUBS.—Secret associations under this name, having both male and female members, existed in London about 1720. Their tendencies and practices were supposed to be similar to those of the Mohocks, suppressed in 1811. In April, 1721, a Royal proclamation interdicted such assemblies.

HELMET, *hel'-met* (Low Lat., *helmus*; Ital., *elmetto*).—A piece of defensive armour for the head, which has been worn by the soldiers of all nations from the earliest ages. The oldest form of the helmet seems to have been that of a conical cap of metal, with a piece projecting downwards from the rim in front, called a nasal, that protected the face. The Egyptians wore helmets of quilted linen, as well as those of metal. The Greeks and Romans wore them in the form of a round skull-cap, with a ridge of metal rising along the centre, from the front to the back, which was ornamented with a fringe or crest of horsehair. Some of these helmets had broad triangular nasals, covering the whole of the upper part of the face, and narrowing gradually to a point at the chin, with holes for the eyes of the wearers. In ancient sculptures, Minerva is often depicted as wearing one of this kind, pushed back to expose the face, with the nasal resting on the upper part of the face. The Anglo-Saxons generally wore helmets of leather, strengthened with a metal ring; the nobility having them of metal in the form of a cone, with a small projecting nasal. The helmet of the Saxon monarch, called the *cynehealm*, or royal helm, was the emblem of his rank, like the crown, and is sometimes represented with a coronet surrounding it. Little change seems to have been made in the form of the helmet until the reign of Richard I., when cylindrical helmets, flat at the top, were introduced, with an *aventail*, or plate, to protect the face. (See BEAVER.) When plate armour was worn, the face of the knight was entirely concealed by the helmet, which was constructed so as to cover the head and neck of the wearer; and this gave rise to the introduction of crests as a mark of distinction, by which he might be recognised. In the present day, metal helmets are worn by the life-guards, horse-guards, and many dragoon regiments, and regiments of yeomanry cavalry; those of the household cavalry having a spike rising from the top, from which a plume of horsehair falls on all sides over the helmet. Helmets of felt are worn by the police, and brass helmets, with a protection for the neck, by firemen.

In Heraldry, the crest is always depicted on or above a helmet, the shape of which differs for different ranks. The sovereign and princes of the blood royal have a full-faced helmet of gold, with gold bars over the opening in front; dukes and marquises, the same, but

of steel with steel bars; earls, viscounts, and barons, an open helmet of steel, in profile, with steel bars; baronets and knights, a full-faced steel helmet with the visor raised; and esquires and gentlemen, a steel helmet, in profile, with the visor closed.

HERALD, *her'-ald* (Low Lat., *heraldus*).—Among the Greeks and Romans, heralds were employed to carry messages to friendly and hostile nations, to conclude treaties of peace and amity, or to declare war. In mediæval times, their duties were very similar, and they had the direction and management of tournaments and jousts, and the regulation of ceremonies of state: it also fell to their part to make lists of the knights and soldiers who were slain in battle. The supervision of pedigrees of descent, and the armorial bearings of families, also came within the especial province of the heralds, who, with the kings-at-arms, held visitations in different counties at certain times for this purpose. Heralds are first mentioned under this title about the middle of the 12th century. The English heralds were formed into a body corporate by Richard III. (See HERALD'S COLLEGE.)

HERALDRY, *her'-ald-re*, the science which teaches everything relating to armorial bearings, badges of honour, the order of precedence to be taken by all estates of the realm; the ceremonials to be observed at coronations, royal christenings, marriages, and funerals; the creation of peers, knights of the Garter, &c.; and on public occasions, such as the opening of parliament. Heraldry, as far as the distinction of families and tribes by various emblems is concerned, is a science of great antiquity. The twelve tribes of the Jews, had each its cognizance, and the standards of nations from the earliest ages bore some particular heraldic device. (See BADGE, FLAG.) But the terms and distinctions of modern heraldry originated about the middle of the 12th century, when the use of armour, and the helmet with closed visor, which concealed the countenance, rendered the assumption of marks of distinction, such as the crest on the casque, and the armorial bearings on the surcoat, absolutely needful to enable the combatants to distinguish friend from foe in the heat of battle. The Normans appear to have borne devices, generally figures of animals, on their shields when they invaded England, but they are not identical with armorial bearings. Shortly after the 12th century, armorial bearings, which had been assumed at pleasure by those who bore them, became hereditary, and confined to certain families. The armorial bearings attributed by some early writers, to the Saxon Kings of England, Charlemagne, and other great personages are now known to be fictitious. The literature of heraldry begins with the treatises of Sassoferatto about 1358, and De Fosse in the reign of Richard II.

Armoial Bearings.—There are ten different kinds of armorial bearings—namely, arms of Adoption, Alliance, Assumption, Community, Concession, Dominion, Patronage, Pretension and Succession, and arms Hereditary. The chief of these are arms of Dominion and Pretension, the first of which are borne by sovereigns in virtue of the territories over which they rule; and the second in virtue of countries over which they claim a right to rule, but exercise no actual authority. Arms of Community, or armorial bearings borne by cities, bishoprics, and bodies corporate; arms of Alliance, which are used by families, to show the intermarriage of an ancestor with an heiress, and to indicate their maternal descent; and arms Hereditary, which descend from father to son, the fourth bearer

of any coat from the first possessor, or his great grandson, being considered a gentleman of ancestry. If the field of the shield be divided into three equal portions by horizontal lines, the upper part is distinguished as the chief, the middle part as the fess, and the lower part as the base. There are also nine points used to indicate the situation of charges: these are—dexter chief, middle chief, sinister chief, honour point, fess point, nombril point, dexter base, middle base, sinister base. The colours and metals used in blazonry are nine in number, the metals being or and argent; the colours, gules, azure, sable, vert, purpure, tenne, and sanguine. These are all indicated, in engraving, by various lines and dots, after the method said to be invented by Petrasancta, an Italian; they are severally noticed under their respective headings. Certain furs are also used, which consist of ten distinct sorts or varieties. (*See* ERMINE, POTENT, VAIR.) There are also nine principal ordinaries, or charges, termed "honourable," and fourteen subordinate ordinaries. The principal ordinaries are the chief, pale, bend, bend sinister, fess, bar, chevron, cross, and saltier. The fess occupies the third and central part of the shield, and is considered to be derived from the broad baldric, or belt, that encircled the loins of the warrior. The cross, when considered as an ordinary, consists of two broad stripes or bars, one perpendicular and the other horizontal, crossing each other at right angles, in the centre of the shield. There are, however, numerous forms of the cross used in heraldry; such as the cross avellane, cross bottonny, and cross crosslet, which are classed among common charges. The remaining principal ordinaries, with their diminutives, are mentioned under their respective headings, as are also the lines of division or demarcation, used as outlines of the ordinaries, or to divide the field of the shield in directions indicated by the names of all these charges, except the chief; as, "party (or parted) per bend," when the shield is divided by a diagonal line, proceeding from the dexter chief to the sinister base. These lines of partition are termed embattled, engrailed, dancette, indented, invected, nebuly, raguly, and wavy. The subordinate ordinaries, are the canton, a third part of the chief on the dexter side; the gyron, a gusset-shaped ordinary, occupying the eighth part of the shield, and formed by a right line and diagonal line meeting in the centre of the shield, or fess point; the fret, formed of two diagonal bars, and a lozenge-shaped frame in the centre of the shield, interlaced; the quarter (*see* QUARTER); the pile (*see* PILE); the orle and tressure (*see* ORLE); the flanches, flasques, and voiders (*see* VOIDERS); and the lozenge, fusil, mascle, and rustre (*see* LOZENGE). To these charges, innumerable representations of the various heavenly bodies, the human form, and its different parts, the head, hands, &c., birds, beasts, fishes, flowers, trees, boughs, towers, weapons, and implements, or parts of implements, of various kinds, which are blazoned according to the position in which they are depicted, and their situation in the shield, or with regard to other ordinaries and charges that appear in it. Armorial bearings, in an extended sense, consist of four parts: the shield and its charges; the crest, which is generally drawn surmounting a helmet (*see* CREST, HELMET), which is surrounded by pieces of silk or velvet, jagged at the edges, and lined with fur, which are termed "mantlings," or "lambrequins;" the motto, which may be assumed at pleasure (*see* MOTTO); and the supporters, which are not borne by commoners (*see* SUPPORTERS, BLAZONRY, DIFFERENCES, MARSHALLING OF ARMS.)

HERALDS' COLLEGE, or COLLEGE OF ARMS.—A corporation consisting of the three English kings-at-arms, six heralds, and four pursuivants, to whom a charter of privileges was granted by Richard III., in 1483. This king also gave them a house, in which they might hold their chapters and deposit their records; but it was taken from them shortly after by his successor, Henry VII. Edward VI., however, confirmed their charter, and Queen Mary gave them a building on Benet's Hill, St. Paul's Churchyard, known as Derby House, on the site of which the present college now stands, with the frontage to Queen

Victoria Street. The kings-at-arms are Garter, Clarenceux, and Norroy; the heralds, Somerset, Chester, Windsor, Richmond, Lancaster, and York; the pursuivants, Blue Mantle, Rouge Croix, Rouge Dragon, and Porteuillus. There is a king-at-arms attached to the order of the Bath, named Bath king-at-arms, who has no connection with the heralds' college. The presidency of the college is vested in the hereditary earl-marshal. Pedigrees are preserved, and grants of arms are made and registered by the members of the college, who are privileged to receive certain fees, in virtue of their office, from those who wish to search their records or avail themselves of their services in any way. In Scotland, there is a college of arms, consisting of Lyon king-at-arms, six heralds, and four pursuivants; and in Ireland, the chief heraldic officer is termed Ulster king-at-arms.

HERBARIUM, *her-bair'-e-um*, a term generally applied to a collection of specimens of plants carefully dried and preserved. Such collections are very valuable—for a well-preserved plant displays its botanical structure, in all its minutiae, better than the most accurate engraving. In order to compose an herbarium, plants are usually collected in a tin box, called a "vasculum," which preserves them from withering for at least a short time. They should be gathered on a dry day, and those which have collected moisture in their leaves should be placed in a vessel of water and be allowed to dry there. It is necessary to kill plants with succulent stems or leaves, by immersing them for a short time in hot water. In order to complete the drying of the specimens, they are placed between layers of blotting-paper, or a specially prepared paper known as botanical drying-paper, so as not to distort their parts. Pressure is then applied, which varies according to the nature of the plants. Those specimens which are quickly dried have the best appearance; and some plants which lose their natural colour and turn black in the ordinary mode of drying, can be beautifully preserved by a quick process. Thus, in the case of the orchids, and other similar plants, when placed between layers of paper, inclosed in a wire net-work frame, and hung before a fire, where the package is made to turn like meat roasting, they can be exquisitely dried in a few hours. By the ordinary process they would require eight or ten days. When properly dried, the specimens are placed in sheets of writing-paper, and may be slightly fastened by making the top and bottom of the stalk pass through slits in the paper for the purpose. The name of the genus and species, the locality where it was found, together with any other interesting information, are then marked beside each. The method of preserving cryptogamous plants is more difficult, on account of the great quantity of moisture which they contain and the great delicacy of their texture. Herbaria are generally arranged on a botanical system; and great care is required in order to preserve their contents from the ravages of moths and beetles. Camphor and a little corrosive sublimate are good preservatives.

HERMETIC BOOKS, *her-met'-ik* (Fr., *her-métique*), a term applied to the supposed literary compositions of the ancient Egyptian god Thoth, who was believed to have acted as the scribe of the other gods. Tradition varied as to the character and number of these inspired writings, which were held to contain all knowledge,

whether divine or human, in its totality. Clement of Alexandria gives the number of the hermetic books as forty-two; Iamblichus, as 20,000; while Manetho raises the number to 36,525. According to the best authorities, these writings were:—one book containing the sacred hymns of Osiris; one book on the life of a king; four books of astrological precepts and observations; eleven books treating of the cosmography, geography, and chorography of Egypt and the Nile; ten upon the laws and discipline of the priesthood, and six treating of medicine. Several pretended Greek translations of these books have survived; but the true origin of these writings is held to be due to Egyptian, Persian, and Rabbinical sources. In mediæval times, the alchemists and astrologers were particularly prone to entitle their works hermetic writings.

HERMODACTYL *her-mo-dak'-til* (Greek, *Hermes*, Mercury, and *dactylus*, a finger), the later Greek and Arabian physicians gave this name to a medicine (probably prepared from colchicum) in high repute as a remedy for gout and rheumatism.

HERO, HEROIC AGE, *he'-ro, he-ro'-ik* (Gr. *heros*, a being intermediate between gods and men).—During the Homeric period, any king, prince, leader in battle, or one who distinguished himself above his companions as a brave warrior, or in wisdom, or in beauty, was fabled to be of divine origin, and after death was worshipped as a deity by those cities or races of mankind that claimed him as founder or ancestor. According to Thirlwall, the heroic age lasted during six generations, or about two hundred years, terminating with the death of the near descendant of those Greeks who fought at Troy. In Homer, however, the word hero is often synonymous with warrior; and in that sense the word is now generally used. It is also applied in literature to the leading personage of a legend, epic poem, or romance.

Heroic Verse, that in which epic poetry, devoted to a history of the exploits of heroes, is composed. In Greek and Latin, *heroic verse* is generally expressed in hexameter lines; in English, Italian, and German, by the iambic of ten syllables, either with or without the additional short syllable; and in French, by the iambic of twelve syllables.

HERODOTUS, HISTORY BY, *he-rod'-i-tus*.—The oldest of the Greek histories, written by Herodotus (484 B.C.—406 B.C.). The leading object of the history is to describe the war between the Greeks and Persians, but includes many collateral subjects, as the history of Egypt, derived from the priestly records and traditions. The work is divided into nine books, to each of which his country gave the name of one of the nine muses. Herodotus visited various countries, and describes with remarkable vigour and accuracy what he had seen; but it is admitted as sometimes too ready to accept as historically true, priestly traditions and popular legends. The history is written in the Ionic dialect, and scholars admire it for its vigorous and graceful diction, while the general reader is pleased with its variety and liveliness of style.

HEXAMETER, *heks-am'-e-ter* (Gr., *hex*, and *metron*, a measure).—The most important form of dactylic verse used amongst the ancient Greeks and Romans. It was termed *hexameter* in consequence of its consisting of six feet, either dactyls (one long syllable and two short) or

spondees (two long syllables), which could be used indifferently throughout the verse, with two exceptions—that the last foot must be invariably a spondee, and the last but one a dactyl. In a few rare cases, either to vary the rhythm or to produce some special effect, a spondee is introduced in the fifth foot, when the line is denominated a *spondaic* line. In modern times, several writers have endeavoured to introduce hexameter verse into English poetry, but with varying degrees of success, the language presenting many difficulties which only great skill and a very sensitive ear can overcome. Arthur Clough wrote some good hexameters, and Longfellow was moderately successful in “*Evangeline*,” but less so in “*Miles Standish*.” Klopstock, Goethe, and Schiller produced some excellent German hexameters. Three of the best lines in Longfellow’s “*Evangeline*” may be quoted as illustrating the construction of the hexametrical measure:—

“Ye who believe in affection that hopes and endures,
and is patient,
Ye who believe in the beauty and strength of woman’s
devotion,
List to the mournful tradition still sung by the pines
of the forest.”

HIERATIC WRITING, *hi-e-rat' ik*. (See **HIEROGLYPHICS**.)

HIEROGLYPHICS, *hi-e-ro-gli'f-iks* (Gr., *hieros*, sacred; *glupho*, I engrave), a term generally applied to the representations of animals or other forms, used to express language, and more especially to those found sculptured on the monuments of Egypt. The ancient Egyptians appear to have used about 1,000 symbols, by means of which they were enabled to express themselves correctly and clearly. Amongst the ancient Greeks this mode of writing was called hieroglyphic, or hierographic; and its invention was attributed to Thoth, the Egyptian Hermes. They were called by the Egyptians, *Neter Kharu*, or “divine words.” The knowledge of hieroglyphics was confined to the priestly caste, and long preserved as a mysterious secret, not to be entrusted to ordinary mortals. In nearly all cases, hieroglyphics consist of representations of the sun, moon, and stars; the human form, animals, fishes; works of art, &c., which were either engraved in relief, sunk below the surface, or traced with a reed pen on slabs of stone, pieces of wood, or leaves of the papyrus. In the Egyptian monuments the hieroglyphics are sometimes plain, and sometimes decorated with colours, either with one simple tone, and thence known to us as monochrome, or else ornamented with a variety of colours and described as polychrome. Those found on coffins appear to have been traced out and afterwards coloured; those inscribed on papyri are merely sketched out, and are called linear hieroglyphs. They are arranged in perpendicular or horizontal columns, separated by lines, and in some cases distributed about the area of the picture to which they refer. Hieroglyphics appear on the walls of the earliest tombs, and are even found scrawled on the blocks of stone which form the great pyramid of King Cheops. The hieroglyphical inscriptions on stone are all religious, historical, or sepulchral. They continued in use for upwards of 3,000 years, when they were superseded by a more condensed writing, called the Demotic, and lastly by the modern Coptic, on the introduction of Christianity. All knowledge of the mode of deciphering

hieroglyphics was lost from the 10th to the 16th century; and on the revival of learning, the task was undertaken in vain, till the discovery of the Rosetta stone in 1799, when a clue to their interpretation was gained. (See *ROSETTA STONE*.) In 1814, Dr. Young was the first to discover, from the name of Ptolemy on this stone, and that of Berenice on a doorway in the south corner of Karnak, that certain hieroglyphics were used to represent sounds, and not ideas exclusively, as had been believed up to that time. The study of hieroglyphics has been pursued by many learned men, both in this country and on the Continent, from that period. Among the most distinguished students of the subject have been Champallion, Lepsius, Birch, Brugsch, and Bunsen.

Ideographic and Phonetic Hieroglyphics.—Hieroglyphics are divided into two classes—ideographs, or symbols representing ideas, not sounds; and phonetics, which spell the sound of the word, the sense of which they are intended to convey. Nearly all the inscriptions are principally composed of phonetics, which are easily distinguished by their constant recurrence. The ideographs are divided into two classes—first, those which represent the object directly; as a wolf to represent that animal, a man having the head of an ibis to represent the god Thoth, a bundle of flax to represent flax, &c.; secondly, those which are enigmatic, and express the idea by less direct means; as a woman beating a tambourine to express joy, a smoking pipe for milk, an ape for anger or irritability, and a jackal for cunning. The number of these particular signs, however, was not many (about 180), as a certain class of them (known as determinatives) was used to express more ideas than one. Thus, a figure representing a seated man signified man in all his relations, functions, and offices; meaning either father, brother, governor, priest, &c.; the particular meaning being conveyed by the arrangement of phonetics before the sign. In the same manner all acts of locomotion were represented by two legs in the act of walking; all actions where the arms were required, by an arm holding a stick; all precious stones by a ring; and all beasts and objects made of leather by a skin. An attribute or quality was represented by some animals generally supposed to possess it, as we might depict a fox to represent cunning, or a dog for fidelity. The direct action was often represented as a bird fishing to express the idea of fishing generally. The ideographs are often preceded by a group of phonetics, about 130 in number, which give the sound of the idea they are intended to express, and are divided into two classes—those ending in vowels and those ending in consonants. The former are fifty-two in number; and as they represent eighteen sounds of the spoken language, answer the purposes of a pure alphabet. The grammatical forms, the abstract prefixes and affixes, substantive and auxiliary verbs—in fact, the great body of the language, is composed of the phonetics. The groups of phonetics preceding the ideographs are constantly interchanged among themselves; and during the long period of three thousand years similar texts in the papyrus show hundreds of words written with different symbols.

Hieratic and Demotic Writing.—All Egyptian books, with the exception of the Rituals, or hieratic books, were written in a cursive or flowing hand, of a very distinct, clear shape, written on long rolls of papyrus in black and red characters. This hieratic character, as it is called, did not employ so many symbols as the hieroglyphic, and approached nearer to the alphabetic system. It continued in use till the 2nd or 3rd century after the birth of Christ. After the 8th century B.C., it was only used for religious purposes. The demotic character (or that employed by writers not belonging to the priestly caste, see *DEMOTIC*), was at first only an abridgement of the hieratic forms; but it rapidly lost all resemblance, and finally tried to accommodate the written language as nearly as possible to the alphabetical Greek and Phœnician systems then known to the Egyptians. It remained in use till the 3rd century A.D., when it gave way to the Coptic. During the time of Clement it was first learned by the

beginners, who then proceeded to learn the hieratic; and afterwards the hieroglyphic, then an old and dead writing.

Language of the Hieroglyphics.—There is some similarity between the language of the ancient inscriptions and the Coptic in the form which it assumed about the 3rd century of the Christian era. Many of the words are similar to words in the Semitic languages; and inscriptions dating about thirteen centuries B.C. exhibit an introduction of Syriac, Aramaic, and Hebrew words, the result evidently of the Egyptian military expedition, which brought the people into contact with the eastern and north-eastern races.

Ethiopian, Assyrian, and other Hieroglyphics.—The ancient Ethiopians carved hieroglyphics on their pyramids and monuments, as well as the Egyptians. The characters resemble those in use in the latter days of the Egyptian monarchy. Hieroglyphical inscriptions have also been found at Nineveh, Koyunjik, and in the islands of the Greek Archipelago. The term hieroglyphics has been applied to the picture-writing of the Aztecs, or ancient Mexicans. The subject delineated, such as a monarch or a town, was represented by painting, and certain hieroglyphs were introduced in order to aid the explanation. The symbol expressing the king's name is attached by a cord over the head of the monarch: that of the town over it; and so on. After the introduction of Christianity, it is said that the monks used these symbols, according to their sounds, to write the Lord's Prayer and other religious formulas. The term hieroglyphics was applied by writers in the 16th century to *emblemata* or devices symbolizing sentences taken from the Greek and Latin poets, and having no relation to Egyptian hieroglyphics. Almanac-makers and astrologers have also applied the term hieroglyphic to the symbolical pictures which are supposed to be prophetic of coming events.

HIGHWAYMAN.—A robber, usually well mounted on horseback, who attacked carriages and equestrians on lonely roads at night-time. The establishment of a police force and of railways has rendered this class of thieves obsolete. Their adventures have found favour in the eyes of novel-writers, especially Bulwer and Ainsworth.

HIMYARITIC INSCRIPTIONS, *him-yar-it-ik*.—In ethnology, and linguistically, the term Himyaritic denotes the whole group of races and languages from the basin of the Euphrates, across South Arabia to Abyssinia. The old name of the people was Sabæans. In 1774 Karsten Niebuhr directed attention to the existence of inscriptions in a peculiar character in the southern districts of Arabia. Many other inscriptions have since been discovered, and gems and bronze tablets are in the British Museum. The inscriptions are generally written in horizontal lines from right to left, the words being separated by a vertical stroke. They are read by means of alphabets of the Himyaritic character preserved by Arabic writers. The greater number appear to be of dates between 100 B.C. and 600 A.D.

HINDOO ARCHITECTURE, *hin-doo'*. (See *INDIAN ARCHITECTURE*.)

HINDOO ERA.—The Hindoos begin their record at 3101 B.C., or 756 years before the Deluge.

HINDOO LANGUAGES.—1. The Sanscrit, known also as Gronthon (from *grandha*, book), is the sacred language of the Brahmins and of literature. (See *SANSKRIT AND PALI*.) The languages spoken by Hindoos in various parts of the peninsula of Hindostan are chiefly—Bengali, in Bengal; dialects of the same spoken in Orissa, Assam, and Nepal; Hindi, in various dialects, in the western plain of the Ganges and Malwa; Gujerati, in Gujerat; Cut-

chi, in Cutch; and Mahrati, in the north-west Deccan. 2. The Pracrit is the common language, and comprehends within itself the various dialects used in writing and in social intercourse.

HINDOOS, LITERATURE OF THE.

—In common with their religious traditions and the invention of their alphabet, the literature of the Hindoos is of the highest antiquity. Nearly all the literary compositions of the Hindoos are in verse. Because men feel before they speculate, therefore is poetry, which is the earliest form of expressing the feelings, the first literature. At this primary stage has the literature of the Hindoos remained. To commence with the Sacred Literature:—Under the general term of SHASTRAS, the Hindoos possess the four *Vedas*, named respectively the Rig, Yajar, Sama, and Atharva; the four *Upavedas*, or Sub-Vedas, the Ayash, Dhanush, Ghandarva, and Artha; the *Vendanga*, or Six Angas; and, finally, the *Upangas*. The *Vedas* are written in Sanscrit (see SANSKRIT), as is the Mantras, or prayers, the Brahmanas, or commandments, and, in short, the whole body of Hindoo theology proper. The *Upavedas* form a second class of sacred books, and consist of treatises upon surgery, medicine, music, dancing, war, architecture, and many mechanical arts. The *Vedangas*, or Six Angas, are treatises subsidiary to the *Vedas*, and comprehend—rules for reciting the *Vedas*, and especially as regards the accents and tones to be observed; a treatise on grammar; besides dissertations upon metres, astrology, and astronomy. These works are held to have been given by inspiration of God to enable the Brahmins to read and understand the *Vedas*. The *Upangas*, or inferior bodies of learning, comprehend logic, theology, the institutes of the law, and certain legendary treatises, to the number of eighteen, which bear the name of *Puranas*. The two oldest and most important epic poems, which are also classed among the sacred books, are the “*Ramayana*,” containing the history of Ramathandara, king of Ayodya, the seventh great incarnation of Vishnu; and the “*Mahabharata*,” detailing the war of the Pandus and Kurus, consisting of 18 books and upwards of 100,000 stanzas. The principal works of the secular literature must be briefly noticed. The “*Mugdhabodha*,” or Beauty of Knowledge, by Goswami, is held to be the best Sanscrit grammar. There are in all eighteen dictionaries of high reputation, but the “*Amarasinha*” is deemed the best. The poetry of the Hindoos betrays throughout an elegiac earnestness and sweetness which owes its origin to their oldest poet, Valmiki, who sang in plaintive strains the murder of a youth who lived happily with his mistress in a beautiful wilderness, and was mourned by her in heartrending lamentations. Among the dramatic poets is Calidas, who has been called the Hindoo Shakspeare. His finest drama is “*Sakontolah*,” or the Fatal Ring, which has been translated into English by Sir William Jones, and into German by Forster, Herder, and others. According to Herder, the scenes of this great drama “are connected by flowery bands; each grows out of the subject as naturally as a beautiful plant. A multitude of sublime as well as tender ideas are found in it, which we should look for in vain in a Grecian drama.” Another great drama of this author is the “*Megha Duta*,” or Cloud-Messenger, which has been rendered into English by Wilkins.

Among the most important philosophical works of the Hindoos, there are—“*Gangheswara Fatwa Schirtamani*,” which is a treatise on metaphysics; “*Pratikhya Tippiani*,” a commentary on visible objects; “*Anumaka Didhiti*,” is a treatise on memory; “*Smriti Tatwa*,” is an abstract of the laws; and “*Hitopadesa*,” a Hindoo book of fables, called also the Fables of Bidpay or Pilpay. This latter was the first work published in Europe in the Hindoo language. It appeared in 1810.

HIPPOCRENE, *hip-po-kreen'* (Greek *hippos*, a horse; *krene*, a fountain).—A fountain on Mount Helicon, said, in the old Greek mythological legends, to have been produced by a stroke from the hoof of the horse Pegasus, and considered sacred to the Muses.

HIPPODROME, *hip'-pod-rome* (Gr., *hippos*, a horse, and *dromos*, a racecourse).—A place appropriated by the Greeks to equestrian exercises, and in which prizes were contended for during the celebration of some of the Olympic games. (See GAMES.) The most remarkable of all the Grecian hippodromes was certainly that built at Olympia, which is stated by Pausanias to have been four leagues long and one in breadth. The word itself is still in use, and is applied to circuses and other buildings set apart for equestrian purposes.

HIPPOGRIFF, OR **HIPPOGRYPH**, *hip'-po-grif*.—A fabulous animal, represented as a winged horse, with the head of a griffin. Ariosto introduced it into his poem, “*Orlando Furioso*” (which see).

HIPPOPHAGI, *hip-pof'-a-ji* (Gr., *hippos*, a horse, and *phagein*, to eat), a term applied to a people of Scythia that fed on horse-flesh. The descendants of these—the Kalmuck Tartars of the present day—still retain the peculiarities of the Scythians, and esteem horseflesh as a dainty. (See HORSE.)

HISTORY, *his'-to-re* (Gr., *historia*, from the verb *historco*, I inquire), means literally an account of facts. It is a word first used by Herodotus, who calls his work by the title “*Historia*,” and this ancient writer fixed the sense in which the word has since been applied—that is, as meaning the science which treats of man in all his social relations, religious, moral, commercial, political, or literary, as far as these are the result of general influences extending to large masses of men. Embracing both the past and present, *history* consequently considers everything which acts upon men—regarding them in the light of members of a society. The history or life of a nation may be either rendered in parts, or as a whole. The most complete work is that which starts at the birth of a kingdom, or nation, and carries the reader upwards in its course amid its various ramifications, changes, and aspects, and finally leaves him when he has obtained a thorough insight into its life, past, present, and possibly future state. A true historian must not merely satisfy himself with chronicling facts, for such a course would only reduce history to the level of chronological annals; but he must describe and estimate the causes which led to certain results. Herodotus is the father of ancient history, as he is often rightly called; and to him we are indebted for the first work really deserving that title. Thucydides and Xenophon are

the writers who have bequeathed us the deeds of the Grecian commonwealth. Livy is the historian of Rome; Justin the compiler of a brief attempt at general history. The works of Cicero, Sallust, Tacitus, and Cæsar, also illustrate one of the most important eras in Roman history. After the revival of letters, history became one of the greatest of literary works, and as such it is esteemed and valued in the present day. Philosophical history is that in which the mere narration of facts is considered as subordinate to the elucidation of general truths and influences; and, consequently, it often lapses into the broaching of a favourite theory. Of philosophical historians, Gibbon on the “Decline and Fall of the Roman Empire” may be considered as entitled to the chief place. (See DECLINE AND FALL.) No department of prose composition offers greater opportunities for the exhibition of a fine literary style.

“HITOPADESA,” *hit-o-pa-de'-sa*.—The title given to a famous collection of Sanscrit fables. (See SANSKRIT LITERATURE.) The word means “good advice, or instruction.”

HOBBY-HORSE.—A framework representing the body and head of a horse, with an opening in the centre for a man to stand, his legs being hidden by trappings. It was a favourite feature on rustic and May-day games, and is now frequently exhibited by clowns in circus performances.

HOCUS-POCUS, *ho'-kus po'-kus*.—A common epithet applied to a conjurer's trick or cheat. Its origin is uncertain, but it is said by Dr. Tilletson to be derived from the words *hoc est corpus*, the form used for consecrating the sacramental wafer in the Roman Catholic Church. Another etymologist, however, derives it from the Welsh *hocced*, a cheat, and *pocus*, a bag, applicable to the machinery by which a juggler performs his tricks. It is more probable, however, that no meaning whatever is attached to the words, which are only a burlesque imitation of the phrases of Latin with which mountebanks and quack doctors interlarded their speeches at country fairs.

HOGMANY, *hog-ma-nay'*.—The name given in some parts of Scotland, and the north of England, to New Year's eve, at which time it was customary for the lower orders to go from door to door and ask, in doggerel rhymes, for cakes, cheese, or money.

HOLOCAUST, *hol'-o-kawst* (Gr., *holos*, the whole, and *kaiō*, I burn), a solemn burnt-sacrifice, common amongst the Greeks and other pagan nations of antiquity, in which the whole of the victim was consumed upon the altar, in contradistinction to the usual custom, which enjoined that only a portion of the sacrifice should be consumed.

HOLSTERS, *hol'-sten* (Ang.-Sax., *healster*, hiding-place).—Cases, generally covered, for pistols, affixed to the pommel of a saddle.

HOMERIC POEMS, *ho-me'-rik*.—The two famous epic poems, the “Iliad” and the “Odyssey,” have been for nearly three thousand years attributed to Homer, a blind wandering minstrel, who went from land to land singing ballads relating the story of the great expedition undertaken by the Grecian kings to avenge the abduction of

Helen (wife of Menelaus, and reported daughter of Jupiter and Leda), by the handsome and accomplished Paris, one of the sons of Priam, king of Ilium, or Troy, on the coast of Asia Minor; and the siege of that renowned city. With the death of Hector, the warlike son of Priam, and the Trojan champion, at the hand of Achilles, the “Iliad” ends. The “Odyssey” relates the wanderings and adventures on his return to Greece of Odysseus or Ulysses, and the search for him by his son Telemachus, sent by his mother Penelope. In the “Iliad” not only the Greek kings, led by Agamemnon, and the heroes who accompanied them (especially Achilles, the son of King Peleus and Thetis, a sea-goddess, and the real hero of the poem), are conspicuous for their achievements, but the Olympic deities appear as combatants, or as watching with intense interest the progress of events. Zeus (Jupiter), favours the Trojans, but Herē (Juno), Athēnē (Minerva), and Poseidon (Neptune) interfere actively on behalf of the Greeks. The general belief has been that Homer did not compose the “Iliad,” or the “Odyssey,” at one time as a complete poem, but that, in the course of his long wanderings, he, from time to time, produced ballads relating to the subject, and that at some subsequent time they were collected. The Rev. W. Collins, in the introduction to the article on Homer, in the “Ancient Classics for English Readers,” says, “No doubt the song grew as he sang. He would probably add from time to time to the original lay. It may fairly be granted also that future minstrels, who sang the great poet's lays after his death, would interweave with them here and there something of their own, more or less successful in its imitation of the original.” In 1795, Professor F. A. Wolf, of Berlin, a distinguished scholar, published a text of the Homeric poems, and asserted that Homer, as an individual, was a myth, and that the “Iliad” and “Odyssey” were compilations of popular ballads by many authors, similar in fact (to adduce an instance familiar to English readers), to the Robin Hood ballads, sung or recited by various minstrels at various times, and afterwards collected. This Wolfian theory, as it is styled, has received considerable support, especially from German critics, but is not accepted by most English writers on the subject. Mr. Collins, already quoted, says, “The speculations of modern scholars, in this, as in other cases, have been much more successful in shaking the popular belief than replacing it by any constructive theory of their own, which is not nearly so credible. ‘Homer’ is quite as likely to have been really Homer, as a mere name under whose shadow the poems of various unknown writers have been grouped.” Mr. Gladstone, one of the most laborious workers in the Homeric field, in his “Studies of Homer and the Homeric Age,” “An Inquiry into the Time and Place of Homer,” and other works relating to the subject, expresses belief in the personality of the poet, rejecting the theory advanced by Wolf. He says, “Over and above correspondence of tangible particulars, there is what I must call a unity of atmosphere in the poems, such as I believe has never been achieved by forgery or imitation.” But he does not understand Homer as being strictly the proper name of the poet, but rather as a generic term implying author. Mr. F. W. Newman, one of the latest translators of Homer, says, “When I say Homer, I mean the poet of the ‘Iliad;’” adding, “I have no conviction at all that the ‘Odyssey’ is from the

same author." Another recent writer probably comes very near the truth in suggesting that—while "it is not credible that poems pervaded by such a wonderful unity of tone and plan, manifestly also inspired by a genius of the highest order, should be resolvable into the mere patchwork of skilful compilers—the materials of Homer's poetry were not invented by himself, but taken up from the living traditions of the people to whom he belonged." One of the marvels connected with the history of the poems is their preservation (their great length being considered) through so long a period. They were publicly recited at great national festivals in all parts of Greece, and professional minstrels, or "rhapsodists," chanted portions, narrating the achievements of some particular hero, to gatherings of the people in all parts of Greece. A collection of the poems is said to have been first brought from Asia to Sparta by Lycurgus; and, at Athens, Solon is supposed to have compelled the minstrels to recite the several portions in due order. A number of eminent scholars were employed by Pisistratus to prepare a proper text; and after that time a familiarity with Homer was considered a test of education and mental culture. The early manuscripts of the great poems were prepared in the costliest fashion, and one, corrected by Aristotle, was carefully preserved by Alexander the Great, preserved in a golden casket. In the Middle Ages, ecclesiastical writers thought they discovered in the two poems allegorical versions of Hebrew history; and superstitious people treated them as charms, recommending, as a cure for a quartan ague, the placing of the fourth book of the "Iliad" under the patient's pillow. Some modern critics, even of high repute, have been as wild in their theories as some of their predecessors, and relegated the "Iliad" to the class of "Solar Myths," asserting that the siege of Troy is but "a repetition of the daily siege of the East by the solar powers that every evening are robbed of their highest treasures in the West," and that the Homeric heroes and their exploits, all represent allegorically, in one form or another, the great conflict between light and darkness. These suggestions are undoubtedly subtle and ingenious; but, as all nations have delighted to treasure up legends respecting the achievements of heroes, and have employed such poetical means as were at their command to give a more permanent form to oral traditions, it is very likely indeed that the ancient Greeks partook of what appears to be a common instinct, and thought no more of a connection between Achilles or Hector, or any other of the personages of the poem, and sunrise and sunset than did the chroniclers or poets who wrote of Arthur and his Knights. The "Iliad" and the "Odyssey" were originally composed in the Ionic dialect (see GREEK LANGUAGE AND LITERATURE), and in hexameters, "the metre," says Mr. Newman, "being undoubtedly founded on 'ditty' or sing-song, like our own ballad." Translators labour under great difficulties in rendering the old Greek into modern metres. Probably the characteristic vigour of the original would be best reproduced in a style of versification similar to that adopted by Walter Scott in "Marmion." George Chapman, one of the earliest, and certainly one of the best, of Homer's translators, adopted the hexameter, but without reproducing Homer's peculiar metre; Pope, and his assistants, made a splendid paraphrase (only by literary courtesy can it be called a translation)

in the heroic measure, with rhymed couplets; Cowper employed blank verse, and in some parts conveyed an adequate impression of the original, but missed the rough vigour, the musical "swing," of the Greek metre. Among recent translators, the most eminent are Mr. Worsley, who wrote in the Spenserian stanza with the concluding Alexandrine; the Earl of Derby, whose blank verse is remarkably vigorous, and Mr. F. W. Newman, whose aim was "to retain every peculiarity of the original, so far as I am able, with the greater care the more foreign it may happen to be, whether it be matter of taste, of intellect, or of morals." He adopted, as the English metre best fitted to translate Homer's hexameter, a long line composed of two short ones, having each either three beats or four beats, and without rhymes. (See METRE.) Professor Conington and Dean Alford have also produced translations; and various portions of the "Iliad" have been translated with considerable success by Mr. Gladstone, and fragments, more especially as experiments in metre, by Mr. Tennyson. The intrinsic merit of the great epics is exhibited by the extent to which they have impressed some of the finest minds of all subsequent ages. The "Iliad," writes Mr. Collins, "was for generations the mayspring of Greek legend and song." Shakspeare found in it inspiration, founding on it "Troilus and Cressida," and epic poets of all times have regarded Homer as one of the greatest, if not the greatest, of their models. Mr. Gladstone says, "Homer has supplied us with a more complete picture of the Greek, or, as he would probably say, of the Achaian people of his time than any other author—it might almost be said, than any number of authors—have supplied with reference to any other age or people. He was not only the glory and delight, but he was, in a great degree, the *poietes*, the 'maker,' of his nation." Mr. Newman writes, "He is alternately poet, orator, historian, theologian, geographer, traveller, jocosist as well as serious, dramatic as well as descriptive. The style is direct, popular, forcible, quaint, flowing, garrulous, similar to the old English ballad."

HONEYMOON.—The first month after marriage. The term originated in an old Teutonic custom of drinking diluted honey for a month after a marriage feast.

HONEY-SUCKLE ORNAMENT, *hone-suk'-l*.—An architectural ornament of Eastern origin, used in Assyria, Persia, and India. The Greeks adopted and greatly improved it, and it is one of the most beautiful of their decorative features, especially in connection with the Ionic style.

HONORARIUM, *hon-or-a'-ri-um*.—The fee paid to barristers or physicians, presumed, by a social fiction, to be a present, not a regular payment for services rendered.

HONOUR, *on'-or* (Lat., *honor*), a term which in its ordinary sense, is capable of many and various significations. The primary signification is obedience to a sense of right, above the influence of mere legal commands or restrictions; and it also implies in the language of civilized society, a regard for the opinions of society generally. It marks out, or indicates, certain rules or notions by which society regulates its proceedings with a sort of tacit understanding; any deviation from which rigorous code incurs the risk of expulsion beyond its pale. The phrase *debt*

of honour, implies a debt the payment of which cannot be enforced by law, but depends upon the sense of honour which compels the fulfilment of an obligation. *Affair of honour, law of honour, court of honour*, with some slight modifications, carry their own interpretation along with them. In another meaning of the word, it signifies a special mark of approbation as a title or a decoration conferred by a sovereign for distinguished services. (See LEGION OF HONOUR.)

Honours in Card Games.—In whist, the ace, king, queen, and knave are known as honours, and are counted in the game, except when equally divided between the opponents. One honour is not reckoned, but if one side holds three honours, two are counted, and if all four honours are held, the four are counted.

HORACE, POEMS OF, *Hor'-as*.—Horace is the Anglicised form of name by which Quintus Horatius Flaccus, the Roman poet of the Augustan age, is most familiarly known. The earliest of his known works are satires, in which the spirit of the Greek masters of the art is very successfully transferred to the Latin language. His most famous productions are the "Odes," "Satires," and "Epistles." He was an Epicurean in philosophy and a man of the world by habit, witty, gay, amorous, with a keen sense of beauty, and endowed with lyrical facility. No writer of the ancient world probably has been so universally popular. Some of the most accomplished of British writers have delighted to translate or imitate him. Ben Jonson, Cowley, Dryden, and Pope, are among the earlier translators; and the "Imitations of Horace," by Pope, are among the wittiest of that great author's productions. Francis's translation of the whole of the works of Horace was for many years the standard English version; but later translations, especially those of Theodore Martin, Lord Lytton, Lord Ravensworth, and Professor Conington, are admirably done, and Professor Newman has produced a translation presenting peculiarities which have provoked much criticism.

HORN, a wind instrument, of which there are various kinds, made of different materials; such as wood, brass, copper, and sometimes silver. (For a description of the horn, see FRENCH HORN, BUGLE, CORNET-A-PISTON, SAX-HORN, &c.)

HORNBOOK, *horn'-book*, a name formerly given to a copy of the alphabet set in a frame and covered with a thin plate of transparent horn, to prevent the paper from being thumbed to pieces by the children who were made to study it.

HORNING, LETTERS OF.—In Scotch Law, a writ compelling a party to execute a judgment or decree of the court. It is now little used, other methods of enforcing civil decrees being adopted.

HORNPIPE, *horn'-pipe*, a rustic musical instrument seldom or ever now seen, except in Wales, where it is still very common. Its Welsh name is pib-corn, meaning hornpipe: it is so called from its being constructed of a wooden pipe, with holes at certain distances and a horn at each end, one to collect the wind blown into it, and the other to augment the sound. This term is also applied to a dance in triple time of six crotchets in a bar. The Sailor's Hornpipe is a well-known dance for one performer, formerly in great favour with the "jolly British tars."

The College Hornpipe is a lively and favourite tune.

HORN-WORK. (See CROWN-WORK.)

HOROSCOPE. (See ASTROLOGY.)

HORS DE COMBAT, *hor-de-kom'-bat* (French).—Literally, "beyond the battle," a phrase meaning that the individual, or body, to whom it is applied is completely beaten, and incapable of further action.

HORSEMANSHIP.—It would be impossible to find out who was the first horseman; but there is little doubt that even in the remotest ages of antiquity, men were accustomed to mount their steeds, causing them to career along with that irresistible speed and endurance with which the genus *Equidæ* are so highly gifted. Good horsemanship has always been considered as one of the corporeal accomplishments of a gentleman. There is a great difference between regimental riding and that of a genuine sportsman. The military seat approaches nearer than any other to that of the *mánège*; and, by reason of the horse-soldier having, in general, but one hand to hold his bridle with, is one which gives him great command over his horse without disturbing his seat. He sits well down in his saddle with his body erect, and in perfect equilibrium with his horse; his legs well stretched down the sides, with a firm pressure of the calves, as well as of the knees and thighs, and the feet firm in the stirrups. But it is not by any one of these aids that he becomes a good horseman. He must be in perfect unison, as it were, with his horse's actions and paces to maintain a good and graceful seat; and in proportion to the just balance of his body will he be able to have a steady hand, a point of vast importance to the dragoon. The importance of this balance, and keeping himself in a proper equilibrium with his horse, is increased by the fact of his not being allowed to rise to the horse's trot, and therefore, requires a still finer use of the bridle hand. The man who rides with the aid of the proper equilibrium, will, in case of necessity, know when to apply the strength he has retained with a steady, light hand, and govern every motion according as he finds it necessary for his purpose; play light with his own weight upon the saddle (by a gentle spring in the instep of both feet on the stirrups), with an easy pressure of both thighs, knees, and calves of the legs. When the horse jumps or plunges, then these aids are also requisite to keep the seat. To become an easy, elegant, or proper horseman, he must learn to ride with comfort and pleasure to his horse, as well as to himself; he must learn to seek his balance from his hip upward, to keep the body with a slight inclination backwards from the perpendicular, and balance himself thus gradually on his horse in all the different paces; which, of course, cannot be expected all at once. The man who rides his horse with a light, steady hand, and elastic body (which when disturbed even has the power of restoring itself to its former seat), in unison with the horse's action, may be truly said to ride in the proper equilibrium. Mounting is the first step in horsemanship; and a certain precaution is necessary in this, as in everything pertaining to horses. The person must approach the animal by walking up to him on the left side, not directly in front, as this might alarm him and make him strike out. The rider is recommended

to take the reins and the pommel of the saddle in his left hand, after having placed his left foot firmly in the stirrup, and by laying his right hand fast on the hinder part of the saddle, to vault into his seat. When mounted, the first thing to set about is the proper adjustment of the reins. If the horse is to be ridden with a single-bridle rein, the reins must be drawn with the rider's right hand through his left, until the horse's mouth has been placed equally on both sides, and then the left hand must be shut, allowing the little finger to separate the two reins. With a double-reign bridle the same must be done. When a horse pulls at his rider, he should advance his arm a little, but not the shoulder, towards the horse's head, raising his hand towards his breast; but he should not shorten the rein in his hand if he can command his horse without it, or he may lose the proper *appui*, or bearing of his mouth, the thumb being uppermost and placed on the bridle. After due attention has been paid to the holding of the bridle, the *seat* must be the next consideration of the learner. A great improvement has been made in this respect, by substituting the long stirrup-leathers for the shorter ones which were formerly in vogue. The thighs should touch the saddle and the sides of the horse with their inner surface chiefly, and the knees and toes should not protrude too much. The toes should be turned a little outward and upward; for the toes being turned in, necessarily cramps the knees. As an easy seat is most important to persons who are obliged, whether by necessity or pleasure, to ride many hours in succession on the road, the following rules should be carefully observed, in order to obtain the same:—The rider should, in the first place, sit well down in the middle of the saddle, with just that length of stirrup-leather as will admit of the fork clearing the pommel of the saddle. The body of the rider should also incline forwards in the trot, as he thus furnishes a proper counter-balance to the movements of the horse; and, above all things, a steady seat must be maintained, as, unless such is the case, the horse will be incommenced in his paces and distressed beyond measure. The seat and horsemanship required when following hounds are described under the article HUNTING.

HORSE-RACING.—There is much doubt as to when horse-racing was first adopted as a sport and pastime; but it may be surmised that, as trials between man and his fellow-man, both in speed and strength, must have been nearly coeval with his pristine state, so, when he had subjugated such animals as were swift of foot, he was led to promote emulous races between them. Chariot-races were most probably those in which the horse first distinguished himself; and the Mithraic festivals in Persia, we are informed by Zoroaster, were attended with chariot-races in honour of the sun. This idolatrous form of worship, accompanied with its games, revelries, and races, extended itself from Persia to Greece and Rome, whence the introduction of horse-racing may be traced into Europe. The Olympic games, first practised at Olympia, are the earliest of which we have any credible account, and the chariot-races in the hippodrome were their greatest attractions. The most opulent citizens in Greece expended great wealth and pains in producing those species of horses which were best adapted to the course. From Greece horse-racing next travelled to Rome; and here we are informed

by Plutarch that chariot-racing was first held in honour of Mithras, during the time of Pompey; but it languished until Julius Cæsar restored the institution with increased magnificence and effect. Although the equestrian spectacles of the Romans were modelled much after those seen in the Olympic games of Greece, yet they exhibited several distinctive features which plainly marked the advancement which had taken place. In lieu of the noble riders and charioteers of the Attic race, the horses of the Roman course and circus were more frequently ridden or driven by slaves and other persons employed for the express purpose, than by the owners themselves, who merely looked on their triumph or defeat, without personally taking part in it; and yet, notwithstanding this, the Romans were far more enthusiastic, both as jockeys and charioteers, than the Greeks; for horse-racing seems to have been their principal amusement. The mounted races of the *ceretamina equestria* were a favourite exercise; but saddles were not then in use, and it seems surprising how some of the riders could perform the feats which it is asserted that they did; such as leaping up and down from their horses, lying at length on their backs, standing upright on them: these riders were termed *desultores*, or leapers, and seem to have resembled those of our own theatrical circuses. In the Roman racing, as in the Grecian, certain prescribed rules and regulations were rigidly adhered to, and those competitors who went against them were deemed to have lost their chance. They were obliged to enter their names and send their horses to a given place at least thirty days before the races commenced; and a species of training was imposed during this interval, not only on the horses, but also on the jockeys and drivers of chariots. Like our own custom, the longer courses were appropriated to aged horses, and the shorter ones to colts; mares ran against mares, as at the Epsom Oak Stakes; while there were both a clerk of the course and a judge, who had all authority vested in themselves. The Roman jockeys rode in different colours, as ours do now, particularly the companies of charioteers, in order that the lookers-on might know the several owners. It is supposed that the first British chariot-races were introduced by the Romans shortly after their invasion of England, and there is every probability that this supposition is based on a true foundation. The first authentic account of local races which we read of, is that referring to the races held at Smithfield, where we are informed by Fitzstephen that races were common enough in the reign of Henry II. Between this period and that of the times of Henry VIII., we learn little or nothing of horse-racing; but during the latter monarch's reign it met with great improvement, a revival having taken place in the sport. Newmarket was first made a favourite sport for turf exploits at the commencement of the reign of Charles I., and by that monarch also races were established in Hyde Park; he likewise altered the prize to a silver or gold cup instead of a bell. With the Restoration, all field sports received a fresh impetus; and amongst them the race-course came in for even more than its fair share of encouragement, as Charles took it under his special patronage. He sent his master of the horse to the Levant, in order to purchase brood mares and stallions, principally Barbs and Turks; and to these he devoted so much trouble and time, that the breed of race-horses became considerably improved. So enthusiastic was Charles

in this, his favourite sport, that he entered his horses in his own name; and it is said that most of the present turf rules and regulations emanated from him. During the reigns of William III. and Anne, some royal patronage was given to the turf—during the latter reign particularly, George, prince of Denmark, being distinguished for the excellence of the stud which he kept up. Mr. Darley, also, in this reign, brought forward the claims of the Arabian horse; and to him we are indebted for the racers of unequalled beauty, strength, and speed, that we possess at the present era. George II. did little for racing, and the same may be said of George III.; but in the latter reign, however, great improvements were made. One horse, known as the Darley Arabian, was the sire of Flying Childers and great grand-sire of Eclipse, two of the swiftest, perhaps the very swiftest, race-horses ever known. Flying Childers was never beaten, won £200,000 in stakes, and was the sire of 497 winning horses. Eclipse won eleven plates and was never beaten. "Eclipse first, the rest nowhere," became a proverbial phrase, so great was his superiority over all other horses of his time. He ran a mile in a minute at Newmarket. At least 160 winning horses were his immediate descendants. Another famous horse imported into this country was the Godolphin Arabian, from whom many of the fleetest racers have descended. Among the swiftest horses of recent times have been Blair Athol, Flying Dutchman, West Australian, Blink Bonny, Thormanby, Gladiateur, Robert the Devil, and Bend d'or. Horse-racing is now nearly as popular in France as in England.

Training.—The first thing which has to be attended to in the education of the racer, is "breaking in" the colt; and this is commenced generally when the animal is about twelve months old. The great points to be aimed at in this rudimentary system of education are, to command obedience and inspire confidence; for if these are not well grounded into the colt at an early age, his future career will meet with many obstacles. The application of the cavesson is the first active restraint applied to all colts, whether destined for the turf or not; but with racers the colts are generally "booted" first, in order to prevent them from rubbing their legs together whilst "loungeing." The colt is bitted, and a long halter attached to the front part of the nose-strap, which the trainer holds in his hand, while a lad walks behind the animal with a whip, and urges him on by cracking it, without, however, whipping him. In three or four days, when they go boldly and freely at full length of the rein each way in the lounge, for fifteen or twenty minutes, having by degrees been brought to this pace and time of loungeing, the mousing-bits, rollers, and cruppers may be put on; and when the colt has become accustomed to them, the saddling him is the next step to be gained. For the first time this operation requires the greatest caution and care; the girths should not be drawn tight, and the stirrups should not be left hanging loose; while the "bearing up" of the bridle should be gradual, and "reining back" must not be too roughly pressed on the colt, by way of supplying his shoulders and giving sensation to the mouth. Mounting him should be only very carefully attempted, and when he seems to be quite at home, with the saddle on his back; and the colt should be familiar with the person who first mounts him. The training of race-horses depends naturally on their age, condition, and constitution; and the processes by which they are rendered capable of racing vary accordingly. A four or five-year old must be trained so as to be able to run a course of from two to four miles; therefore such a horse must in his exercises be habituated to go, at a good telling pace, a much longer distance than that which he will be obliged to do when he comes to the post. It is also highly important that he should have his training sweats and gallops carried up to the time of his going to the post.

If he is a hearty feeding horse, not a sweat must be lost, as, if so, he would be found to have superfluous flesh on the day of the race, which would consequently incapacitate him for his trial. Training exercises for race-horses are confined to walking, cantering, and galloping—trotting forming no part of turf practice. Sweatings are important agents in training, as by this process the body of the horse is relieved from all unnecessary matter; they promote speed by lightening the body, and give increased endurance by clearing the air-vessels. The process by which this is done is to envelop the horse in blankets and heavy clothes, and start him into a canter; after which he is stripped and rubbed down, and his clothes resumed. Racers are generally clipped once in the winter; but if their coats be extremely rough, the process is repeated a second time. The jockey must be trained as well as the horse. According to Nimrod, he should possess the following not every-day qualifications:—"Considerable bodily power in a very small compass; much personal intrepidity; a kind of habitual insensibility to provocation, bordering upon apathy, which no efforts of an opponent in a race can get the better of; and an habitual check to the tongue. Exclusive of the peril with which the actual race is attended, his profession lays a heavy tax on the constitution. The jockey must at all times work hard; but, the hardest of all tasks, he must work upon an empty stomach. During his preparation for the race, he must have the abstinence of an Asiatic; indeed, it too often happens that at meals he can only be a spectator—we mean during the period of his wasting. To sum up all, he has to work hard, and deprive himself of every comfort, risking his neck into the bargain."

Ages for Running.—The ages of race-horses are reckoned from the 1st of January in the year he is foaled. Some horses run when two years old; but the more important races are contested by three-year-olds.

Racing and Race-Courses.—Just before a race commences, the horses are ushered forth from their stables, and brought up to the "paddock" with their clothes on, when the business of stripping and saddling is commenced. All racing saddles are made of the very best materials, in order to avert any evil consequences which might accrue both to the horse and his rider from the accidental slipping of a strap or the rupture of a girth, or similar casualties. The horses, after being saddled, are mounted by their jockeys, who take a preliminary canter to get them in heat for the forthcoming race. They are then pulled up and ranged in a line at the starting-post, from which they go off at the signal given by the starter, who drops a flag for the purpose. In a short course, the speed is generally husbanded until the finish, when the jockeys go to work with spur and whip to make the most of their various chances. In a long race, however, of three or four miles, if a jockey is mounted on an aged horse, and the rest of the competitors on two or three-year-olds, he generally puts forth the best speed at first, in consequence of his own horse being able to last twice the distance that the others can; and when they are exhausted, he is able to go in to win, on account of the superior endurance of the animal which he bestrides. Newmarket bears away the palm as the metropolis of racing; and after that come Epsom, Ascot, York, Doncaster, and Goodwood, all of which are celebrated for important races run during the year. The Turf is governed by the rules and regulations which were first instituted in its interest, and over it presides a court of honour, termed the "Jockey Club," which annually elects the different stewards of races, and decides all disputes which may arise during the settlement of matches, wagers, and similar sporting matters.

Steeple-Chasing ought to be characterised as a hybrid species between hunting and true racing. It does not take place on race-courses, but over open country, generally presenting considerable difficulties. At first a steeple was chosen as marking the winning place, and from that the name was derived. The ground is marked out the morning of the race, unknown to the competitors, and leaps and jumps are included in the course to be gone over.

Hurdle-Racing is a species of steeple-chasing; but takes place on race-courses, the leaps being only over low flights of hurdles, it is not so dangerous, and consequently less exciting.

Handicapping.—In some races the speed of horses is equalised by "handicapping," or proportioning the weights they are to carry. (See HANDICAPPING.)

Betting.—An enormous amount of money changes hands on every great race. Owners of race-horses and others back particular animals for great amounts, and there is a large class of professional betting-men known as "the ring," who make bets with all comers, so "making their book" by proportioning, the odds they accept being such that it is rarely possible for them to lose much even under adverse circumstances, and they may win large amounts. Sometimes, however, an "outsider," or horse which appeared to have no chance, comes to the front, calculations are upset, and disaster to the bookmaker follows. As no debts incurred by betting are recoverable by law, they are "debts of honour," and no mercy is shown to a defaulter, who is known as a "welcher," and chased and assaulted if he appears on a race-course.

HOTEL, ho-tel' (Fr.).—In its general sense, a large inn for the reception of strangers; but, in a restricted sense, particularly in France, identical with the word palace, or mansion, and it is applied to the residences of persons of rank. Hotels for the accommodation of visitors are, in many instances, of great dimensions. In New York and San Francisco, there are hotels with two or three hundred bedrooms, and the arrangements and furnishings are of the most elaborate kind. Some large hotels in this country, especially those in connection with the great lines of railway, are little inferior in size. (See INN.) In another sense, the term is nearly synonymous with the term hospital, and is applied to buildings set apart for the reception of sick and infirm paupers; as the Hôtel de Dieu, Hôtel des Invalides.

HOUND, hound' (Sax., hund), a name applied generally to different dogs used in hunting and other field sports; and more especially to those which hunt by scent. The characteristic of a hound is its long pendulous ears. Some naturalists consider the hound to be a distinct species of dog, naming it *Canis Sagax*. The bloodhound would appear to be the origin of the other sub-varieties, which are mentioned in this work under their different names. England, not only from the climate, but also on account of the great care bestowed in the breeding and management of these animals, excels all other countries in her different breeds of hounds. (See BLOODHOUND, FOXHOUND, GREYHOUND, HARRIER, STAGHOUND, &c., &c.)

HOURLIS, how'-reez (Arab, hār-al-ayn, black-eyed).—According to the Koran, virgins who are promised as one of the rewards of the blessed in Mahomet's paradise. From the description given in the book on which the Mohammedan faith is grounded, it appears that the *houris* surpass both pearls and rubies in their dazzling beauty: they are subject to no impurity; are always represented with dark eyes concealed by long jet eyelashes, the languishing glances of which they reserve for the voluptuous enjoyment of "true believers" alone. They are not created of clay like mortal women, but of pure musk, and are endowed with immortal youth, and every intellectual and corporeal charm. They dwell in green gardens, which are beautiful beyond what imagination can conceive.

HOUSE, howse (Ang.-Sax.).—In the widest acceptance of this term, this term may be applied to any erection calculated to afford shelter to man or cattle, or protection to goods and stores; but in a more restricted sense, it is confined to

the dwellings in which the middle classes of English society reside, in contradistinction to the more extensive palace, castle, or mansion of the titled and wealthy on the one hand, and the little cottage of an artisan and labouring man, on the other. The construction of the house in different countries and at different periods, has, of course, varied considerably according to circumstances of climate, position, and available building materials. In the houses of the mediæval period, the walls of the basement story were strongly built, to afford protection to the inmates against the attacks of robbers and personal enemies. In France, Scotland, and Belgium, the houses were often many stories in height, and of great size. The roofs were high and steep, and a picturesque character was given to many of these old buildings by the peaked gables, which were often richly adorned by carved woodwork. Another peculiar feature in mediæval houses, that may still be seen in some towns possessing buildings of some antiquity was the projection of one floor over that which was immediately below it, so that in a street in which the houses were of considerable height, the upper stories of the buildings on either side were only a few feet apart. Although the houses of Italy, Holland, Belgium, and Flanders, that were built during the 12th and 13th centuries, are frequently marked by great architectural beauty externally, yet little improvement was made in domestic architecture in England, especially in the interior arrangements, until the reign of Elizabeth, when the architects of the day began to construct dwelling-houses with some regard to the locality in which they were situated, and the purposes for which they were especially required, and also in accordance with the tastes, habits, and pursuits of the persons for whom they were erected. (See ELIZABETHAN ARCHITECTURE.) The houses of the 18th century, consisting chiefly of large square piles of red brick, pierced with numerous windows in front and at the back, with a porch over the entrance, and a heavy slated roof projecting beyond the face of the walls, and supported by a bold but simple cornice, were roomy and comfortable, if not picturesque and ornate in appearance, and the style has recently been revived in what are known as Queen Anne houses; but those of the Victorian age exhibit examples in which external elegance of structure is combined with judiciously-contrived internal arrangements, that tend to the comfort and convenience of the occupants in every respect. (See BUILDING, BRICKWORK, &c.)

HOWITZER, how'-itz-er (Ger., haubitze, from haufen, to fill), a kind of gun, from which large shot and shell may be thrown at short ranges. These guns are constructed in brass and iron. Howitzers are longer than mortars, and shorter than guns of the same calibre; they require a small charge of powder, but the angle of elevation at which they are fired is high. They were first used in the British service about the end of the 17th century. The Coehorn howitzer, used in the hilly districts of India, is so small that it can be easily carried by a horse.

HULSEAN SCHOLARSHIPS, LECTURES, AND PROFESSORSHIP, hul'-se-an.—The Rev. John Hulse, of Elworth, Cheshire, who died in 1790, bequeathed a considerable amount of property to the University of Cambridge, where he had been educated, for the

advancement of religious learning. There are two scholarships attached to St. John's College: an annual prize of £40 for a theological disquisition; a Hulsean Lecturer, who is elected annually, and whose duty is to preach not less than four nor more than six times before the University; and a Hulsean Professorship of Divinity; established by statute in 1860, and in which was merged an office known as that of Christian Advocate.

HUMANITIES, *hu-man'-e-teez*, a term employed in modern European schools and colleges to signify polite literature, or grammar, rhetoric, and poetry, including the study of the ancient classics. The term is employed in opposition to philosophy and science. In a more restricted sense it is used for philology.

HUMOUR, *hu'-mor*.—A word frequently used as synonymous with disposition, and we speak of being in a good or bad humour. Old writers use the word in the same sense of whim or fancy, and Shakespeare makes Corporal Nym repeat the phrase "that is the humour of it," meaning it is my whim to do so. Another and more modern meaning of the word is almost equivalent to fun or comicality, and we speak of an actor or a writer possessed of a great fund of humour.

HUNGARIAN LANGUAGE AND LITERATURE, *hun-gai'-e-an*.—The language of Hungary, or the Magyar tongue, is defined by philologists as belonging to the Finnic family of languages, and a syntax bears some resemblance to the Turkish. It is very beautiful and expressive, and is admirably adapted for poetic composition. No trace of literary productions appears in the Magyar dialect before the 12th century, when several works of a religious character were issued in the native tongue. In the 14th and 15th centuries Magyar was the language of the court, and was used in official documents. Some works were published in Magyar, but a regular literature in that language may be said to have been first developed in the course of the hundred years following 1437, when two Hussite monks translated a large portion of the Scriptures for the use of Hungarian refugees in Moldavia. Other translations appeared, and poetical chronicles and ecclesiastical legends also appeared in the popular tongue. In the 16th century appeared other versions of the Scriptures, and a considerable body of popular poetry. The earliest Magyar lyrical poet was Valentine Balassa, in the latter part of the 16th century, and Rimas was another pleasing poet of the same period. The 17th century was marked by much activity in the religious world, and a version of the Vulgate and many polemical works appeared. Various historical productions by Szalárdi, Lisznai, Pethő, Remény, and others, appeared during the period. A Hungarian Latin Dictionary was compiled by Párispápai; and a very distinct epoch was marked by the appearance, in 1657, of a heroic poem by Nicolas Zrínyi, descriptive of the siege and fall of Sziget. Other long poems appeared, one (the Disaster of Mohács) in thirteen cantos, by Baron Lisiti, and Stephen Gyöngyösi, produced several lyric and epic poems. Literary activity in the Magyar language, afterwards declined, but between 1772 and 1807 there was a marked revival; and in the following year, Francis Kazinczy, and other writers who followed his example, revived the purity and beauty of the native

tongue. In 1830 the Hungarian Academy of Science was established, and the development of Magyar literature received an immense impulse. Among the leading writers of recent times are—in history, Ormos, Pulszky, Marczali, Fraknoi, and Radvanszky; in fiction, Jokai, Abrangi, Miksath and Beksic; in poetry and the drama, Vajda, Arany (considered to be the first Hungarian poet of the day), Csiky and Bereczik; and in philological and in educational literature, Badenz, Szasz, Molnar, Wenzel and Vambrey.

HUNTING, *hunt'-ing* (from Sax., *hunting*, to hunt).—A favourite British sport, which seems to have been pursued even in the earliest times. The classics have many and full accounts as to the hunting of wild animals for pleasure; but the fox-hunting of the present day eclipses, in its hardihood and *naïve* recklessness, all the chases which were prosecuted both by the Greeks and Romans. The hunter (horse ridden in the chase) is trained nearly in a similar manner to the racer (see HORSE-RACING), with this alteration, that the object with the latter is to "keep the length in him," or, in other words, to insure a burst of speed when called upon; while the former is trained to exhibit stoutness and increased endurance, with a proportionately less degree of speed. The seat in the hunting-saddle stands next to that of the jockey in importance, as on it depends the whole success of the fox-hunter. He must not only be firm in the saddle, in order to prevent falling during the performance of the leaps which his horse takes, but must also so ride his hunter as to make the most of him, and not weary him out by holding him in too tightly, or working him unnecessarily. Hare-hunting is a comparatively mild form of sport. In old times stag-hunting was the true royal pastime, but now fox-hunting has usurped its place, and stag-hunting is now but comparatively rarely followed, and chiefly in the western counties. The Queen's staghounds meet during the season at or near Windsor; but as the animal hunted is usually one of the half-tame stags of the park, and carted to the place of meeting, the excitement is not very considerable. The different varieties of dogs used in hunting are described under the proper headings. (See FOXHOUND, HARRIER, STAGHOUND, &c.)

Hunting Phraseology.—There are many technical terms connected with hunting which must be well known by the would-be sportsman. With regard to the tails of animals, that of the fox is called its *brush*, that of the deer, its *single*; while the feet of a fox are called *pads*, its face, the *mask* or *front*, and that of a deer, its *snout* or *nose*. With regard to the numbers of dogs, we say a *brace* of greyhounds, but a *couple* of hounds; a *leash* of the former, but a *couple* and *half* of the latter. In true sporting phraseology, it is a *kennel* of foxhounds, a *pack* being thought more appropriate to harriers; but many crack sportsmen are nevertheless heard to talk of a *pack* of foxhounds in common parlance. When it is observed that hounds, in drawing a cover, hit the scent the reverse way, they are said to *draw amiss*. When the game is up, and the hounds scent it in the opposite direction to that which it is taking, they are then said to *run to the heel*, or *run to counter*. When they take a fresh scent, *i.e.*, go off on another trail to that on which they started, in consequence of the two scents crossing, they are said to *hunt change*. The terms *run mute* and *run riot* are also employed when they run without any cry, or are disobedient to the huntsman. In a fox-hunt, when the sportsmen are assembled, and the hounds enter the first cover, they are said to *throw off*, and when they carry the scent to a given point, and no longer stoop their noses to it, they are said to *throw up*. When the goodness of the scent enables the

whole pack to *stream away* at the top of their speed, they often do not cry, or, in sporting phraseology, *throw a tongue*. When the hounds acknowledge the scent, however, by lifting their tongues freely, they are said to be in *full cry*. Every pack of hounds, besides the huntsman, should possess at least two *whippers-in*, one in order to turn the hounds when at fault, and the other to keep up those that are trailing off. The place where the hounds and sportsmen assemble is termed the *meet*.

HURDLES, *hur'd-ls.*—Strong fences of wicker-work, or interlaced wattles or branches, formed into portions about six feet long and three feet high. They are used in military operations for the purpose of forming temporary protection to soldiers in the field, and as assistance in throwing up earthworks; and in sport as fences for horses or men to leap over. (See RACING.)

HURDY-GURDY, *hur'-de-gur'-de.*—An old, stringed, musical instrument, played by means of a small wooden wheel, the edge of which is charged with rosin, which acts upon four strings of gut. Two of the strings are regulated by finger-keys, and have a compass of about twelve notes; the other strings are tuned in unison or in fifths, and form a drone bass. The hurdy-gurdy, which originated in Germany, is a favourite instrument with the peasantry of southern Europe.

HURST (Saxon, a little wood or thicket).—A termination to many names of places in England, especially in the southern counties, indicating the original character of the locality.

In Heraldry, a charge representing a small group of trees.

HYDROGRAPHY, *hi-drog'-raf-e* (Gr., *hudor*, water; *grapho*, I write).—A term applied to that part of science which relates to the description of the waters existing on the surface of the earth, particularly with reference to the bearings of the coast, the depth, currents, and other circumstances important or useful in navigation. Hydrography implies the same

thing with regard to the sea that geography implies with respect to the land. There is a hydrographic department of the Admiralty, where the results of surveys, in different parts of the world, are embodied in maps and charts.

HYPER, *hi'-per* (Gr., *hyper*, over, beyond), a Greek preposition, which is conjoined with other words in order to denote excess, or anything beyond, or over, and above the original quality of the word to which it is added.

HYPERBOLE, *hi-per'-bo-le* (from Gr., *hyper*; and *ballo*, I throw).—A figure used in rhetoric, which signifies more than it is intended to represent to the hearer or reader. When expressions are made use of and assertions made which might be deemed incredible or beyond belief, in order to induce credibility in some fact wanted to be proved, the argument may be said to be supported by hyperboles. As is well observed, exaggeration is but hyperbole applied to narrative, in order to produce a better impression than would be gained by plain facts alone. It is the basis of many metaphors.

HYPERBOREAN, *hi-per-bo'-re-an* (from Gr., *hyper*, beyond; and *boreas*, the north), a designation applied to people who dwell in countries very far north. The ancients gave this denomination to the people and places to the northward of the Scythians, as their knowledge of the localities and the inhabitants did not extend beyond the country belonging to that nation.

HYPHEN, *hi'-fen* (Gr., *huphen*, together with), a mark, or short line, written thus (-), and placed between two words, in order to show that they are connected together and form a compound word; as, *four-leaved*, *steam engine*. In writing and printing, the hyphen is used to connect the syllables of a divided word, and is placed after the syllable that closes a line, with the following syllable in the next line.

I.

I is the ninth letter, and the third vowel, of the English language. In different countries the pronunciation of this letter varies considerably. In Italy, France, and other countries, it is pronounced similarly to the English *e*. In England its sound varies; in some words it is long, as *bright*, *fine*; and in others short, as *prince*, *tin*; in others, again, it is pronounced like *y*, as in *union*, *farrier*; and in some words it is pronounced like double *e*, as in *magazine*. The name of the character in Greek was *iota*, from the Hebrew *jod*, and being the smallest in the alphabet, was figuratively used to signify a trifle, "not an iota," or more familiarly "not a jot" being common expressions. Used as a numeral, the letter I signifies *one*, and represents as many units as it is times repeated; thus, I. one, II. two, III. three; and when put before a higher numeral, it subtracts itself; as, IV. four IX., nine; and so on: when, however, it is placed after a higher numeral, it adds itself; thus VI. is 5+1, or 6. In the Greek and Latin languages there was only one character for *i*. and *j*. and in some old English dictionaries, the two letters are mixed up. In Roman coins the I was the mark of the *as* in value and weight; and as an initial letter in in-

scriptions, it stood for *idea*, *imperator*, *imperii*, *indulgentia*, *invictus*, &c. The dot over the small *i* originated in the 14th century.

IAMBICS, *i-am'-biks*, a species of verse used by the Greek and Latin poets, and originally composed of a succession of iambi feet (one short and one long syllable). The derivation of the word has never been ascertained, but according to Aristotle, the iambic measure was first employed in satirical poems called *iambi*, which appear to have been acted dramatically. Amongst the Greek tragic poets, the iambic is the measure most commonly used. They consisted of three entire metres, or six feet, and were consequently called the tragic *trimeter acatalectic*. Although, as stated above, this species of verse originally consisted of iambi only, in time other feet were introduced into the metre. In modern European languages, verses composed of five iambic feet form a favourite metre. Such verses are much used in the lighter French poetry: and in serious composition it is ordinarily used by the English, Germans, and Italians. Scott's longer poems afford many excellent illustrations of the successful use of the metre.

ICH DIEN, *ik deen* (Ger., I serve), the motto of the Prince of Wales. Besides the coronet, this prince has a distinguishing mark of honour, called the Prince of Wales' feathers. This consists of a plume of three ostrich-feathers, with an ancient coronet; under which in a scroll is the motto "ICH DIEN." This device (according to popular history) was first assumed by Edward, the Black Prince, after the famous battle of Cressy, in which he killed John, king of Bohemia, the stipendiary of the king of France, and took from him such a plume and motto, which have ever since been borne by every succeeding Prince of Wales.

ICHNOGRAPHY, *ik-nog'-raf-e* (Gr., *ichnos*, and *graphein*, to write or draw), a term formerly used, but now nearly obsolete, to express the ground-plan of any building, and also applied to the delineation of the same.

ICHOR, *ik'-or*, with the ancient Greeks the term signified the divine liquor which flowed from the wounds of the gods.

ICONOGRAPHY, *i-kon-og'-ra-fe* (Gr., *eikon*, an image or representation; and *graphein*, to write).—In an extended sense, the word iconography is applied to the description of any figures found in paintings and sculpture, as well as monumental records of ancient date; but in its restricted signification it is confined to descriptions and drawings of any sculptured images or paintings of the human form, animals, and inanimate objects, that are found in buildings and their appurtenances, and furniture, that are devoted to ecclesiastical purposes. This is more properly termed Christian iconography, and embraces all objects connected with Christian art from the earliest times, as far as the close of the 15th century.

ICONOLOGY, *i-kon-ol'-o-je* (Gr., *eikon*, an image, and *logos*, word, or discourse), a description and explanation of allegorical figures, symbols, emblems, and visible representations, or embodiments of abstract qualities.

IDEOGRAPHS, OR IDEOGRAPHIC CHARACTERS. (See **HIEROGLYPHICS**.)

IDES, *idez*. (See **CALENDS**.)

IDIOM, *id'-e-om* (from Gr., *idios*, peculiar).—A mode of speaking or writing which is foreign to the usages of grammar or the general law of language, and which is restricted to some individual dialect. The sense of the word itself is by no means restricted, as the French word *idiome* expresses any peculiar dialect or language, although *idiotisme* may be deemed a more correct equivalent for our own word idiom. There are several subordinate words to express the idioms of different nations—as Latinism for a Latin one. Gallicism for a French idiom, Hibernicism for an Irish one.

IDYLL, OR IDYL, *i'-dil* (Gr., *eidullion*, the diminutive of *eidos*, form), a short pastoral poem, or an animated description and representation of ordinary objects of nature in harmonious verse. The bucolic poems of Theocritus are called idylls, while those of Virgil are distinguished by the name of eclogues, which renders it a difficult matter to decide why there should be any difference in name, as both compositions are of a similar nature throughout. That the ancients did not restrict the use of the word may be seen by

the works of Ausonius, which are called idylls. In English literature, Thomson's "Seasons," Burns' "Cotters' Saturday Night," and Goldsmith's "Deserted Village," are examples of idylls; while Tennyson, in his "Idylls of the King," has extended the interpretation of the word to a further degree even than was done by the ancients, making it almost equivalent to epic, by the introduction of romantic and tragical incidents.

"**ILIAD**" AND "**ODYSSEY**," *il'-e-ad od'-is-se*. (See **HOMERIC POEMS**.)

ILLUMINATING, *il-lu'-min-ai-ting* (Lat., *lumen*, light; Fr., *illuminer*, to enlighten).—The art of embellishing and adorning manuscripts with pictorial illustrations of various scenes and events, portraits, initial letters, borders, &c., which was practised in the mediæval ages prior to the introduction of printing. Illuminating was generally executed by the monks, almost every monastery having a *scriptorium*, or writing-room, in which copies of the Scriptures and other works were made with great labour, neatness, and care, and afterwards ornamented with pictures in gold and colours. The colours employed by the artists were extremely brilliant, and the general effect was heightened by the introduction of gold and silver leaf, which was highly burnished. The initial letters and ornamental borders are generally very elaborate, and executed with great skill and taste, and the portraits of eminent persons, particularly those which were executed between the 5th and 10th centuries, are often extremely good. The illuminations that were executed in the 11th, 12th, and 13th centuries are not so carefully drawn and coloured, nor do they evince so much artistic skill as those of an earlier period; but from the commencement of the 14th century to the introduction of printing, they show considerable improvement in style and execution. Illumination was practised by the Romans, as Pliny mentions in his "Natural History," book xxv. chap. 2, a biographical work, written by Varro, which included the lives of 700 Romans of eminence, and was enriched by portraits executed by the author himself. Many valuable specimens of illuminated manuscripts are prescribed in all the principal libraries of Europe, and copies of a great number of drawings illustrative of English antiquities including portraits of the early kings and queens of England, with representations of the persons and costume of our ancestors, their arms, houses, ships, and household furniture, have been published by Mr. Strutt, an eminent English antiquary. Since the revival of Gothic architecture, and the introduction of mediæval ornamentation into our churches, the illumination of scrolls with texts of Scripture, for decorative purposes in connection with churches, schools, &c., and a variety of ornamental work, has become a fashionable amusement.

ILLUSTRATION, *il-lus-tra'-shun* (Lat., *illustrare*, to show).—A term used in Rhetoric, and distinct from comparison, or simile, in this fact only, that illustration is used to illumine an argument, while the former are only used to give force to expression. *Illustration* is sometimes used in a wider and far more extended sense, in which, according to Brande, it seems to comprehend example, in which case it is the recital of a particular fact or instance, evincing

the truth of a general proposition laid down in argument.

IMBROGLIO, *im-brole'-yo* (Ital., *brogliare*, to confound or mix together).—A term applied to the plot of a romance or drama, when it is much perplexed, complicated, and interwoven. The word is also used in connection with the affairs of real life, and generally means a quarrel arising from a complication of circumstances.

IMBRUED, *im-brude'*.—In Heraldry, signifies dropping with blood, and weapons thus blazoned are represented with blood dropping from them.

IMITATION, *im-i-tai'-shun*.—In Musical Composition, the repetition of a passage or the following of a passage with a similar one in other parts or voices. Strict imitation is when the passage is exactly repeated either in unison or octave; piece imitation when some expressive variations are adopted.

"IMMORTALS," *im-mor'-tals*.—The name given to the flower of the ancient Persian army, limited in number to 10,000, and recruited from the nobility alone. Herodotus speaks of them as the body-guard of Xerxes. The name was also given to the body-guard of the Eastern emperors at Constantinople, in the 4th and 5th centuries. The members of the French Academy are sometimes spoken of familiarly as "The Immortals."

IMMORTELS, *im-mor'-tels*. (See EVER-LASTING FLOWERS.)

IMPALE, *im-pale'*.—In Heraldry, to impale is to arrange the coats of arms side by side on one shield, as in the case of the combined coats of husband and wife, where the husband's arms occupy the place of honour on the dexter side.

IMPERATIVE MOOD, *im-per'-a-tiv* (Lat., *impero*, I command), is that part of the verb which is employed in commanding, exhorting, entreating, or permitting; as, Depart in peace, Avoid evil companions.

IMPERFECT TENSE.—That tense, or part of a verb, which expresses the action or event of which we speak, as at a certain time, to which we refer, in an unfinished or imperfect state; as, I was reading when he arrived.

IMPERSONAL VERBS, *im-per'-so-nal* (Fr., *impersonnel*).—Such as are used only in the third person; as, It rains, it snows, it thunders. The word impersonal, however, as implying a total absence of persons, cannot, with strict propriety, be applied to these verbs, nor, indeed, to any verbs; and hence some grammarians reject the name altogether.

IMPLUVIUM, *im-plu'-ve-um*.—A tank in the centre of the hall of a Roman house, placed immediately under the unroofed part, and intended to receive the rain running down from the roof. It was generally of marble.

IMPOST, *im'-post*.—In architecture, the point where an arch rests on a wall or column.

IMPRIMATUR, *im-pri-mai'-tur* (Lat., Let it be printed).—The permission granted by the censor, in those countries where a censorship of the press is established, for a book to be printed. The form was also used with books printed in England in early times; and even in the present day, books printed with the sanction of certain

of the Scottish universities and religious works written by Roman Catholics bear an announcement that they are issued with the permission of the authorities.

IMPRIMIS, *im-pri'-mis* (Lat., in the first place).—A word generally used in cataloguing a series of things, ideas, or arguments.

IMPRINT, *im'-print* (from Fr. *imprimer*, to impress).—The designation of the place where, by whom, and when, a book is published, always placed under the title of the same. By the Act 39 Geo. III. cap. 79, every printer is obliged to affix his name and residence to each article he shall print; and if it consists of more than one leaf, then upon the first and last leaves, under a heavy penalty. There are some exceptions to this law, however. In newspapers, the imprint is generally placed at the end of the last column of the final page. In books, the name of the printer is sometimes placed at the back of the title-page, and sometimes at the end of the work.

IMPROMPTU, *im-prompt'-u* (Lat., in readiness).—In Literature, is applied to something given out on the spur of the moment, or without premeditation, usually of a witty or epigrammatic character. In Music, it means a short, extemporaneous composition.

IMPROVISATORE, *im-pro-ve-za-to'-re* (Ital., unpremeditatedly).—A term applied to one who has the power of composing and reciting a number of verses upon any given subject without premeditation. Among the ancient Greeks, the gift was common; and many of the more cultivated Arabs are proficient in the art. The Italians particularly excel in this species of composition, owing, no doubt, in great measure, to the richness and flexibility of their language. Few of the poems so produced have acquired any permanent reputation. The improvisatore generally accompanies himself on the guitar while he is giving forth his verses. Several females have greatly distinguished themselves in this art, and are styled *improvisatrici*.

INCANTATION, *in-kan'-ta-shun* (from Latin root, *canere*, to sing).—An impressive ceremony in the old systems of magic, on which rhymes were musically chanted in the belief that they would produce supernatural results. It is a custom in many rural districts, and among unlettered people, to chant in a low voice, a rhyme supposed to have the power of producing cures in case of illness or accident. The more poetical and dignified form of incantation is illustrated in the "Runic rhymes," of Norma of the Fitful Head, in Walter Scott's "Pirate."

INCH, *insh*.—In Geography, a Gaelic word signifying island, corresponding to the Irish *innis*, both words frequently forming prefixes to proper names of places.

INCOGNITO, *in-kog'-ne-to* (Lat., unknown), is commonly applied to a prince, nobleman, &c., travelling in such a way as not to be recognized or known, which is usually done by assuming a feigned name, and dispensing with retinue or other marks of distinction.

INCUNABULA, *in-ku-nab'-u-la* (Lat., a cradle).—A term applied by bibliographers to early books, printed before the year 1550. It is supposed that there are nearly 20,000 of these books in existence. Many catalogues have been published, but the most complete is given in Hain's

"Repertorium Bibliographicum," 2 vols., Stuttg. 1826-38.

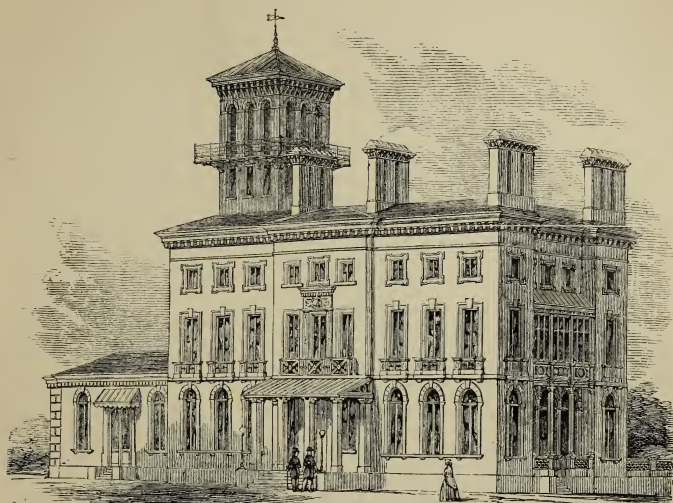
INDECLINABLE, *in-de-klī-na-bl* (Lat., *indeclinabilis*).—A grammatical term applied to a word which admits of no declension or inflection; as adverbs, prepositions, conjunctions. In Latin and Greek, indeclinable nouns are such as have the same termination for all cases.

INDENTED, *in-dent'-ed* (Lat., *dens*, a tooth).—One of the eight lines of partition used in Heraldry for dividing one part of the field of the shield from another, or for forming the outline of any ordinary or sub-ordinary. It consists of a zigzag line, resembling the teeth of a saw.

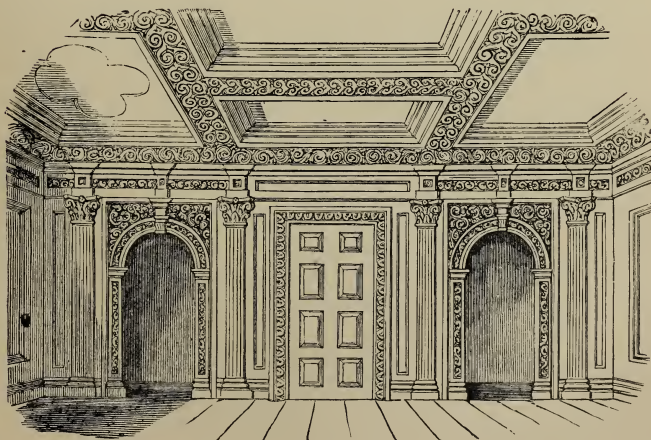
INDEX, *in'-deks* (Lat., *indico*, I point out).—An alphabetical list at the end of a work, of the principal subjects treated of or contained therein, with references to the pages where they are to be found.

INDIAN ARCHITECTURE.—The oldest buildings that remain as examples of the early architecture of India are considered by competent judges not to have been erected earlier than 300 years prior to the Christian era. Indian architecture may be broadly classified as Buddhist, Brahman, and Mohammedan, which three styles derive their names from the religion professed by the dominant power in India during the period in which each prevailed. There are many points in which the architecture of Hindostan bears a striking resemblance to that of Egypt, temples being found in both countries that have been hewn out of the solid rock, and ornamented with statues attached to piers or walls, which are remarkable for their size and colossal proportions. The chief, and, indeed, almost the only, remains of Buddhist architecture, with the exception of the *topes*, or structures built to contain relics of Buddha, are the cave-temples found in southern India, the principal of which are the temples of Elephanta and Salseette, near Bombay; Behar, Cuttack, and those of Ellora and Carli, in the province of Aurungabad. These temples consist of excavations cut out of the solid rock with considerable labour; and in addition to the temple itself, monasteries, if they may be so termed, are also hewn out of the stone in the same manner in some localities, to afford accommodation for the priests who were in attendance on the shrine of the divinity. The rock-temple of Carli is supposed to be one of the oldest of these curious excavations. It consists of a nave about 26 feet in width, separated from narrow aisles on either side by rows of massive pillars. The entire length of this temple is 126 feet, and its breadth about 47 feet. The roof is vaulted, and rises about 45 feet above the level of the floor in the centre. The columns on either side of the nave consist of a base, shaft, and capital. The base is very high, especially when compared with the bases of columns used in the various styles of European architecture; the shaft is octagonal, and about equal to the base in height; while the capitals are ornamented with kneeling elephants, on which male and female figures are seated. Entrance to the body of the temple is obtained through three doors, the largest being in the centre, and the two smaller ones on either side of it. There is a porch before these doors, which extends along the whole facade of the temple and a few feet beyond it; and above them is a gallery. The space above the gallery up to the roof itself is entirely open, forming a large

semi-circular window, by which light is admitted into the interior. The temple terminates in a semi-circular apse, surmounted by a semi-dome, and in this apse the shrine and image of the divinity are placed. The temple of Elephanta is much larger, and excavated in the side of a mountain: it is about 130 feet square. It is filled with rich and varied sculpture, consisting chiefly of colossal figures in *alto relievo*. The columns are composed of a fluted shaft swelling outwards in the middle, standing on a high square base, and surmounted by a bulb-shaped circular capital, which is one of the chief distinctive features of Indian architecture. The Buddhist rock-monasteries consist of a series of cells ranged round a central hall. They are not so richly ornamented with sculpture as the temples; but many of the chambers are decorated with paintings representing events in the life of Buddha, and portraits of Buddha himself and Buddhist saints. The *topes* are generally in the form of circular buildings, but some are large towers. They vary from 10 or 20 feet in diameter to 180 or 200 feet, and for the most part consist of a solid cupola erected on a flat terrace reached by steps, with a relic-case called a *tee*, or a square ornament in the form of a box, intended to represent a relic-case, on the summit. A column called a *lāt* was placed in front of the Buddhist religious buildings, on which the Buddhist creed was inscribed. Some of the Buddhist temples in Ceylon, Burmah, and Java consist of a series of terraces rising above one another in a pyramidal form, with a relic of Buddha under a dome at the summit. (See BORO BUDDOR.) On the decline of the worship of Buddha in India, a sect known as the Jains, or Jainas, sprang up. The temples erected by the Jains were characterized by great elegance and lightness of structure, combined with richness of ornamentation. They consist of a central dome, surrounded by others more or less in number, supported on sculpture columns. The ceiling of the cupolas, which are hollow and not solid like the domes of the *topes* erected by the Buddhists, are panelled and adorned with elaborately designed scroll-work and foliage. The temples of the followers of Brahma consist of an inner temple, or sanctuary, called the *bimāna*. This is in the form of a four-sided pyramid, which rises to a great height, and is formed of a succession of steps or terraces, adorned with figures and sculpture, and crowned by a small dome. In this was the cell, or sanctuary, which contained the image of the deity, and was lighted by lamps. A porch was placed before the entrance to this inner sanctuary, and the entire pile formed the centre of a rectangular court, surrounded by a high wall. The entrance to this court was flanked by pyramidal gate towers, called *gopuras*. Halls, or colonnades, consisting of a roof, supported on pillars, varying in number from four up to a thousand, according to the size of the building, were erected in the inclosures that surrounded the Brahman temples. These halls were called *choultrys*: they served for the celebration of festivals and ceremonies connected with the worship of Brahma, that occurred at various seasons of the year. The temples at Tanjore and Bareilly are the best examples of this style of Indian architecture. Some of the finest buildings in India in the Hindoo style are the ghauts, or landing places, and the reservoirs are ornamented with temples and kiosks. When the Mohammedans conquered India, they introduced the arch, and various



ITALIAN STYLE OF ARCHITECTURE, WITH CAMPANILE TOWER.



ITALIAN STYLE OF ARCHITECTURE—INTERIOR WITH CARVED PANELS.

features of Saracenic or Moorish architecture, which were gradually blended with the more prominent features of the previous styles prevailing in that country, until a new style was produced similar in many respects to the architecture of Arabia, Northern Africa, and Spain, when the Saracens had the mastery over those countries, but containing other characteristics, which are sufficient to mark it as a distinct style. The ornamentation is as rich and minute in detail as that of Moorish architecture, and the pointed and horse-shoe arch are introduced in a square panel, but the bulbous cupolas swelling outwards and extending considerably beyond the circle of the base, as well as the projecting galleries of the minarets and balconies, supported on cantiers of great length, are peculiar, and belong entirely to the Mohammedan architecture of India. The mosques, and some of the tombs erected by the great Mohammedan sultans of India, afford the best examples of this style of architecture. Among these may be named the great mosque at Delhi, and the magnificent mausoleum built by Shah Jehan, near Agra, about 1640, to the memory of one of his queens. (See TAJ MAHAL.)

INDICATIVE MOOD, *in-dik'-a-tiv* (Lat., *indico*, I point out).—That particular form or state of a verb which simply indicates or declares a thing; as, I love, He is feared.

INDICTION, *in-dik'-shun* (Lat., *indictio*, establishment, order).—A period of fifteen years, different from other cycles, in the fact of its having no reference to astronomical phenomena. The indication is supposed to relate to certain judicial acts, as tariffs of the taxes and such like decrees, at stated intervals, under the old Greek emperors. The Cæsarean indiction fell on the 8th of the calends of October (24th September); the Constantinopolitan diction on the 1st September; and the Pontifical indiction on the 1st January. The year of indication may be computed by the following formula, to correspond with the year of our era:—Add 3 to the date, divide the sum by 15, and the remainder will be the year of the indiction. If the remainder be 0, it will signify the 15th of the cycle. The reader will find the subject fully discussed in Gibbon's "Decline and Fall of the Roman Empire."

INDO-GERMANIC, **INDO-EUROPEAN**, or **ARYAN LANGUAGES**, *indo-fer'-man-ik*, are the different names given by different philologists to one of the three great families into which the tongues of mankind are divided. (See ARYAN and ARYAN LANGUAGES.)

INFANT SCHOOLS. (See SCHOOLS.)

INFANTA, *in-fan'-ta* (Sp.), a word signifying child, and generally applied as a title of honour to the princesses of the royal houses of Spain and Portugal. The pre-eminence implied by the appellation may be seen by *infanta*, signifying the child *par excellence*. The princes are styled *infanté*.

INFERNAL MACHINE, *in-fer'-nal* (Fr., from Lat. *infernus*), a name given generally to all machines containing powder and projectiles, and intended to destroy human life. The name, however, applies more particularly to those machines made use of in conspiracies and political plots, as the one tried against Napoleon Bonaparte in 1800, against Louis Philippe in

1835, and against Louis Napoleon on the 14th January, 1853, none of which was successful.

INFINITIVE MOOD, *in-fin'-i-tiv* (Lat., *infinitivus*).—That form or state of the verb which expresses a thing in a general manner, without any distinction of number or person; as, to walk, to speak, to be feared.

INFLECTION, or **INFLEXION**, *in-flek'-shun* (Lat., *inflectio*, I bend).—A change which takes place in a word, from a modification of its sense between the *root* and the *termination*. The inflexion must therefore not be confounded with the termination itself. For example, the syllable *am* is the root of all the words employed in the conjugation of the Latin verb *amo*, "I love;" in the imperfect tense the inflexion is the syllable *ab*. The termination varies according to the person: *amabam*, *amabas*, *amabat*.

INITIALS, *in-es'h'-als*.—The first letters of the Christian and surname of a person, or of official and other titles. (See ABBREVIATION.) The initials of a name are frequently ornamentally combined into a monogram. (See MONOGRAM.) In some cases, a court of law will accept initials appended to documents as equivalent to the full signature.

INNS OF COURT.—When the Court of Common Pleas was fixed at Westminster, in terms of an article in the Magna Charta, which declared that it should no longer follow the king's court, but be held in some certain place, numerous professors of the municipal law were thus brought together and formed into an aggregate body. They naturally fell into a kind of collegiate order, purchased or became possessed, at various times, of certain houses between Westminster and the City, where exercises were performed, lectures read, and degrees at length conferred in the common law. The degrees were those of barrister, answering to bachelor in the universities. According to Fortescue, there were two sorts of collegiate houses—one called Inns of Chancery, in which the younger students of the law were usually placed, and the greater inns, called the Inns of Court, into which the more advanced students were admitted. The Inns of Court are Lincoln's Inn, the Inner Temple, the Middle Temple, and Gray's Inn. These four courts alone possess the power of conferring the rank of barrister-at-law, a rank which constitutes an indispensable qualification for practice in the superior courts. (See BARRISTER.) Lincoln's Inn appears to have taken its name from one of the earls of Lincoln, whose house came to be appropriated to students of law. It has a magnificent chapel, built by Inigo Jones, and an elegant hall and library, built by Hardwick, in the Tudor style, in 1845. The library contains a very large and valuable collection of books. The Inner and Middle Temples came into the hands of the professors of law after the dissolution of the Knights Templars, and a temporary occupation by the Knights Hospitallers. In the reign of Henry VIII. the members of the Temple divided into two societies, afterwards known as the Inner and Middle Temples. Probably some buildings beyond the western boundary of the city were intended to form an Outer Temple, but no traces of such an inn remain. The magnificent Temple church, common to both societies, was founded by the Templars upon the model of that of the Holy Sepulchre at Jerusalem. Middle Temple Hall, built in 1572, is a noble building, in which,

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in the Elizabethan days, masques and revelry were held, and it is the only existing building in which a play of Shakespeare's was performed in the poet's lifetime. The Middle Temple library is an elegant Gothic building, opened in 1862; and the new Hall of the Inner Temple was opened in 1870. Gray's Inn takes its name from the lords Gray of Wilton, and was established in the reign of Edward III. The chapel and hall are plain buildings. Each inn of court is governed by a body of its own, known by the name of Benchers, with a treasurer elected annually. Besides the four inns of court, there are subordinate inns, which are now only used as chambers, principally by solicitors and attorneys.

INNUENDO, *in-nu'-en-do* (Greek, *neuo*, to nod with the head).—A remote hint or suggestion of a person or thing not actually named.

INSCRIPTION, *in-skrip'-shun* (Lat., *in*, and *scribo*, I write).—A term applied to designate any monumental writing intended to commemorate a remarkable event, or to hand down to posterity the name of the builder of a monument, or of the person in whose honour it was erected. From the very earliest periods in the history of antiquity, when documents are rare, and, indeed, often wanting altogether, inscriptions appear to form one of the most important sources from which we have derived our knowledge of the public, private, religious, and social life of the ancients. Inscriptions, more commonly, are limited to portraying the deeds and names of memorable men; but we have also records of battles, dates of important events, chronicles of laws, decrees, legends, moral and scientific precepts, and chronological tables beyond number. We have thus important records of the annals of antiquity; and the Assyrians, the Egyptians, the Indians, Persians, Etruscans, Greeks, and Romans, all have left such traces behind them. Some of the earliest inscriptions are written like the Hebrew, from the right to the left; others varied their lines, the first being written from the left to the right, and the second from the right to the left. In this manner, which is called boustrophedon, the laws of Solon were written, and some specimens are still extant. The method of later times was to write, like ourselves, from the left to the right. But besides these general distinctions, there occur a great variety, and some modifications of writing, which are the result of mere fancy. An important point, which it is necessary to master before attempting to read Greek, and more especially Roman inscriptions, is the abbreviation of names and words. The oldest Latin inscriptions are those which were found at Rome, and which are now kept in the monastery of Einsiedeln: they are written on parchment, and probably belong to the 10th or 11th century.

INSPIRATION, *in-spe-ra'-shun* (Lat., *spiro*, to breathe).—In Literature, a term somewhat loosely applied to the enlarged preceptions of men of genius, who see more of the beauty which literature or art can express than ordinary persons can. In this manner we speak of inspired painters, poets, and musicians, of being inspired by a love of country or noble ambition, not in any way understanding that the person spoken of was the recipient of supernatural powers.

INSTITUTE, NATIONAL, OF FRANCE (from Lat., *instituere*, to found).—A

learned body which was organized in France shortly after the first storm of the revolution of the last century had spent its fury. Its necessity arose from the fact of all the academies and art institutions having been destroyed; consequently, the *Institut National* was formed on the 25th October, 1795, out of the remnants of the five academies; namely, the French Academy, the Academy of Inscriptions and Belles-Lettres, that of the Mathematical and Physical Sciences, of the Fine Arts, and of the Moral and Political Sciences, all united in one harmonious whole. The great object designed by the Institute was the advancement of the arts and sciences, by continual researches, by the publication of new discoveries, and by a correspondence with the most distinguished scholars of all nations (known as associates or corresponding members), and especially by promoting such scientific and literary undertakings as would tend to the national glory and welfare.

INSTITUTION, *in-stit-u'-shun*, a name given to a system, plan, or society, established, either by law or by the authority of individuals, for promoting any object, public or social. Thus, a college is termed a *collegiate institution*; an academy of belles-lettres, a *literary institution*; an almsgiving society, a *benevolent or charitable institution*; while a banking company or insurance office is a *commercial institution*. Hospitals are likewise charitable institutions, and will be found given under their respective heads. (See also MECHANICS' INSTITUTIONS.)

INTAGLIO, *in-tal'-yo* Ital., from *in*, into, and *tagliare*, to cut).—All gems, sculpture, and the dies from which coins and metals are struck, in which the design is hollowed out, or sunk beneath the surface of the stone, are said to be cut in intaglio. Gems and stones cut in intaglio are thus designated to distinguish them from cameos (see *CAMEO*), in which the device is raised in relief above the surface. The art of cutting gems in intaglio must have been practised at a very early age, as we find from Genesis xxxviii. 18, that signets were in use at that period, and Moses was directed to have the names of the twelve tribes engraved on the twelve stones that were set in the breast-plate of the high priest. It was also practised, to a great extent, among the Greeks and Romans, the latter especially being passionately fond of wearing a profusion of engraved gems on the fingers and about their clothing, and making collections of these works of art; while the Greek engravers seem to have excelled in their production, both in beauty of design and excellence of execution. Stones of all sorts, such as agate, cornelian, onyx, jasper, and amethyst, and the garnet, were employed by the ancient engravers for gems in intaglio; but some of the best that are now extant are executed in paste, or jems made artificially. The method of cutting intaglios, that was practised by the Greek and Roman engravers, is supposed to be very similar to that which is adopted by the modern seal engraver, who sinks the design into the stone, by means of finely-pointed cutting-tools, to which a rotary motion is imparted by a wheel and treadle, as in the turning-lathe. The operation is materially assisted by the introduction of a little diamond dust and sweet oil into the orifice made by the cutting-tool, at various stages of the operation.

INTERCALARY, *in-ter-kal'-are* (Lat.,

intercalarius, inserted between others).—The name that is applied to any day or days that are inserted out of the usual course, for the purpose of preserving the equation of time. (See CALENDAR and LEAP-YEAR.)

INTERCOLUMNIATION, *in-ter-kol-um'-ne-ai-shun* (Latin, *inter*, between; *columna*, column), the open area between columns measured between their lower diameters. There are five kinds of intercolumniation;—*pienostylos*, or columns thick set; *systylos*, having an interval of two diameters; *eustylos*, with two and a quarter diameters; *diastylos*, with three diameters; and *aræostylos*, with four diameters, or columns thin set.

INTERJECTION, *in-ter-jek'-shun* (from Lat., *interjicio*, I throw between).—A word used to express some passion or emotion of the mind; as joy, grief, wonder, &c. Interjections have usually been considered, by grammarians, as forming a distinct part of speech, though some regard them as not entitled to this dignity, most of them being nothing more than mere ejaculations, and none forming parts of sentences.

INTERLUDE, *in'-ter-lude* (Lat., *inter*, between; *ludus*, a play), a short play, or dance, accompanied by music, introduced between the acts of a piece, or between the play and the after-piece. Those short pieces of church music seldom exceeding a few bars, and generally produced *extempore*, and played after each stanza, excepting the last of the metrical psalm, to give breathing-time to the singers, are called interludes.

INTERMARRIAGE, *in-ter-ma'-rij*.—The marriage of persons nearly related to each other. If continued for several generations in the human race, there is good reason for supposing that physical degeneration will result, but this law does not appear to apply to the lower animals, as some of the finest breeds of horses, cattle, and sheep have resulted from continuous in-breeding.

INTERMEZZO, *in-ter-met'-zo* (Italian).—A short scene, generally of a humorous character, introduced between the acts of an opera or play. The practice is peculiar to the Italian drama.

INTERPOLATION, *in-ter-pol'-ai-shun* (Lat., *interpola*, I place between).—The insertion of spurious passages in a work, in some cases for the support of a particular theory or doctrine. In some printed texts, passages that are suspected of not being genuine are often inclosed in brackets.

INTERROGATION, *in-ter-ro-gai'-shun* (from Lat., *interrogo*, I question).—The act of questioning, also a note in writing and printing which marks a question being put, thus (?).

INTERVAL, *in'-ter-val* (Lat., *intervallum*, space between things).—In Music, the difference in point of gravity or acuteness between any two sounds. By the ancients, intervals were divided into simple, or composite, and composite. The first of these they termed *diastems*, and the second *systems*. According to Bacchius, the enharmonic diecis, or fourth of a tone, was the least of all the intervals in the Greek music; but as all our tones concur in consonances (to which order only the *diatonic* of the three ancient genera was accommodated), our scale does not notice so small a division. In modern music, the semitone is considered as a simple interval; thus from B to C is a semitone, or simple interval,

and only those which consist of two or more semitones are termed composite, as from C to D, which is two half-tones, or a compound interval.

INTONATION, *in-to-nai'-shun* (Latin, *intono*, I utter a sound).—The art of tuning and giving to the tones of the voice, or instruments, that occasional impulse, swell, and decrease upon which all expression, to a great extent, depends. In church music, those antiphonies which are first sung by the priest and responded to by the choir or congregation, are called *intonations*. The greater part of the prayer is recited on one note, the last two or three words being sung to the proximate notes of the scale; but in the longer prayers the terminal inflection is generally omitted.

INTRADOS, *in-trai'-dos*, (Lat., *intra*, within; *dorsum*, back).—In Architecture, the outline or curve formed by the junction of the lower ends of the voussiors is called its *extrados* or *soffit*; while the curve similarly formed by the upper ends of the voussiors is termed its *extrados*.

INTRANSITIVE, *in-tran'-si-tiv* (Lat., *transitivus*, passing over).—An intransitive verb is one which expresses an action or state that is limited to the agent, or, in other words, an action that does not *pass over* to, or operate upon, an object; as, "I read," or "he sleeps."

INTRENCHMENT. (See LINES OF INTRENCHMENT.)

INTRIGUE, *in-treef* (from Ital., *intrigo*), an assemblage of events or circumstances which occur in any affair, and lead to the perplexity of the persons acting therein. In this sense it is used to signify the plot of a play or romance, or that point in which the principal characters are most embarrassed, through artifice or through unfortunate accidents and incidents. The term is also applied to the pursuit of illicit amours.

INVECTED, *in-vek'-ted*, (Lat., *in*, into; and *vehere*, to carry).—One of the eight partition lines used in heraldry. It resembles the line termed "engrailed" in form (see ENGRAILED), as it consists of a series of semicircular or scalloped indentations; but it differs from it in having the points of the indentations turned inwards and projecting into the charge, instead of into the field of the shield.

INVENTION AND DISCOVERY, *in-ven'-shun, dis-kuv'-ere* (Lat., *invenio*, I find out; Fr., *découvrir*, literally, to uncover, lay open what was before concealed).—Invention is the creation or construction of something which has not before existed in that form or system of arrangement; discovery is the making manifest something which has hitherto been unknown. Galileo invented the telescope; Harvey discovered the circulation of the blood. In older times, however, this distinction was not observed, and the two terms were used synonymously; thus Locke and Bacon talk of the invention of sciences. (See PATENT.)

INVERSION, *in-ver'-shun* (Lat., *inversio*, change of order), in Rhetoric, is the placing of words out of their natural order. In every language there is a certain customary arrangement observed in the ordering of words in a sentence. In English the order generally is, first the nominative, then the verb, and afterwards the accusative, if the verb be active. This order, however, is, for the sake of effect, and owing to the pre-

eminence of one particular idea, frequently varied; as in the sentence "Great is Diana of the Ephesians," which is infinitely more forcible than "Diana of the Ephesians is great." The leading idea of the phrase is the greatness of Diana, and the word expressing the quality is the first to be uttered. In this respect the Latin language admits of much more liberty than ours does. Milton, in his prose works, and some of the older English writers, in attempting to imitate this, produced obscurity.

INVERSION, *in-ver'-shun*.—In Music, the transposing of one of the two notes of an interval of a position the reverse of that which it before occupied with respect to the other note, so that, if before it was the lower note of the two, it shall be the higher, and *vice versa*.

INVOCATION, *in-vo-kai'-shun* (Lat., *invoco*, I call upon).—A term applied in literature to that part at the commencement of a poem in which the poet calls upon the Muses, or some one capable of giving him inspiration, in the affected, old-fashioned manner, to aid him in his labour.

IONIAN MODE, *i-o'-ne-an*.—In Church Music, an old mode supposed to be identical with the ancient Greek mode so named.

IONIC DIALECT. (See GREEK LANGUAGE AND LITERATURE.)

IONIC ARCHITECTURE.—A style of Greek architecture which originated in Ionia, and appeared to have derived many of its leading features from Assyria. (See GREEK ARCHITECTURE.) The capitals of Ionic columns are decorated with volutes, and the columns have bases.

IRELAND FORGERIES.—In 1786, a young man, W. H. Ireland, who had been engaged in a lawyer's office, announced that he had discovered some manuscripts in Shakespeare's handwriting. He had forged them, but so cleverly that they deceived many critics. Emboldened by his success, he ventured to produce a tragedy, *Vostigern*, which John Kemble was induced to put upon the stage, although himself not believing it to be authentic. The audience had better judgment than the professed critics, and hissed the drama from the stage. Ireland afterwards confessed the fraud.

IRISH LANGUAGE. (See GAELIC.)

IRON CAGE.—A mode of torture by imprisonment in an iron cage, about 8 or 9 feet square, has been adopted at various times. After the battle of Angora, in Asia Minor, in 1402, at which Timour, or Tamerlane, took the Sultan Bajazet prisoner, the captive was confined in an iron cage, which was carried about in a wagon. This story has been doubted by some historians, but Gibbon thinks it too well attested to be without foundation. The punishment was not uncommon in the Middle Ages in Spain and Italy; and in 1469, Louis XI. of France confined Cardinal Balue (detected in an act of treachery) in an iron cage, 8 feet square, in the Château d'Ouzain, near Blois. The wretched Cardinal remained in that condition for ten years. Reference is made to this horrible cruelty by Walter Scott, in "Quentin Durward."

IRON MASK, MAN WITH THE.—A mysterious prisoner of State in France wearing a black mask, made of velvet, but popularly supposed

to be of iron. He was under the especial charge of M. de St. Mars, and was confined at Pignerol in 1679, at Exelles, 1681, at Sainte Marguerite, 1687; and in September, 1698, was brought by his custodian to the Bastille, Paris. According to the journal of Dujonca, the lieutenant of the Bastille, the prisoner died on the 19th of September, 1703, and was buried in the cemetery of St. Paul, and the register of that parish contains an entry in which the deceased is named Marchiali. During his imprisonment great deference was paid to him by his custodian, and he was addressed as if he were a person of high rank. Various unsuccessful attempts have been made to penetrate the secret of his identity. Voltaire accepted a suggestion that the prisoner was the Duke of Vermandois, a natural son of Louis XIV. and Louise de la Vallière, and the cause of the offence was that the young duke struck his half-brother the Dauphin. The fact that the Duke of Vermandois was known to have died in camp in 1683, did not suffice to convince some of the believers in this story. Another statement which has found much credence is, that the prisoner was the son of Anne of Austria, mother of Louis XIV., either by Cardinal Mazarin or the English Duke of Buckingham. It is said that the existence of this elder half-brother was not made known to Louis XIV. until he came of age, and that he then resolved to imprison his relative for life. He has also been considered a twin brother of Louis XIV. Other and wilder theories have been advanced, some writers going so far as to say that James, Duke of Monmouth, generally supposed to have been executed on Tower Hill, saved his life by a trick, and was permitted to go to France, where he was secured and condemned to perpetual seclusion, wearing a black mask. Weighty arguments have been adduced in favour of the suggestion that the prisoner was Count Matthioli, minister of Charles III., Duke of Mantua. Matthioli had been bribed to urge the duke to deliver up the fortress of Casale, which gave access to the whole of Lombardy, but had, instead, betrayed the French interests. Louis induced him to cross the French frontier, when he was secretly arrested and imprisoned for life. This suggestion has been supported by writers of considerable historical reputation; but more recently, a French investigator, M. Lung, has given attention to the examination of an immense number of State and official documents, and has come to the conclusion that the Man in the Iron Mask was not Matthioli, but probably the secret head of a wide-spread and formidable conspiracy for the assassination of Louis XIV. and some of his advisers. If that were so, there must have been grave reasons of State for hushing up the matter, as the substitution of imprisonment for execution was not a usual incident. Louis XIV. and his ministers were not squeamish about taking life. The mystery is scarcely likely now to be satisfactorily solved.

IRONS.—Shackles of iron sometimes used to restrain refractory soldiers and sailors. (See BILTOES.)

IRONY, *i'-ron-e* (Gr., *eironeia*).—A form of expression in which the words used convey a meaning the direct contrary of what is intended. The essence of irony consists in its being simple and natural, not too closely concealed, as that its meaning may be hid, and yet not so patent as to deprive it of its natural character. The meaning

given to this word by the ancients was somewhat different from that in which it is now employed : it denoted an ignorance purposely affected, to provoke or confound an antagonist, and in this sense, was much employed by Socrates against the Sophists.

ISIAC TABLE, *i'-si-ak*.—A bronze plate inlaid with nickle and silver, about 4 feet 8 inches high and 3 feet long, preserved in the museum of Turin. On it are three rows of figures of Egyptian deities and emblems. It was for a long period highly valued by archæologists, but is now generally considered to be a late or spurious production.

ISLAND, *i'-land* (Anglo-Saxon, *igland*, or "eye-land," a spot of land surrounded by water, as the eye in the face).—A mass of land surrounded by water. In the case of the very large island, Australia, the term continent is frequently applied, on account of its great size. The greatest number of islands, including those of the largest size, are found in the Pacific and Indian Oceans. When a number of small islands are grouped together they form an archipelago.

Islands of the Blessed.—An ancient Greek myth expressing a belief in the existence of certain islands in the Western Ocean, where the favourites of the gods enjoyed an immortality of bliss. (See ALLANTIDES.)

ISOMETRICAL PERSPECTIVE, *i-so-met'-re-kal* (Gr., *isos*, equal; and *metrein*, to measure).—A method of drawing any building, or range of buildings, in such a manner that the height, length, and breadth may be exhibited in the proportion which they really bear to each other, and not as they appear when the drawing is made in accordance with the rules of perspective; in other words, the perspective plane of the paper must be imagined as making equal angles with the three principal dimensions of the figure and the eye, at an infinite distance. Thus lines in the three principal directions will be drawn on the same scale, and that scale the same for all parts of the line. One decided advantage possessed by geometrical drawings is, that measurements from one scale will serve for all the views of an object, whether these be in plan, elevation, or section. While, however, presenting this desideratum, they are deficient in another: by their aid the relative position of vertical to horizontal lines, or *vice versa*, cannot be delineated on the same paper or plan. Thus, if one view is in plan, it is confined to plan alone, no lines delineating elevation being admissible in the same drawing; hence the variety of drawings required to give the measurements and positions of an object or design having many points of view. The rules of perspective are applicable to the delineation of objects by which two or more sides can be seen. Thus, in the case of a box which is longer than it is broad, but having the bottom of the same dimensions as the top, to give drawings *geometrically constructed*, from which a workman might take measurements, three separate views would be essential—namely, one of the side, one of the end, these being in elevation, and one of the top, this being in plan; the bottom being of the same dimensions as the top, no plan of this would be requisite. Now, by the rules of perspective, the box might be drawn in such a way that the side, end, and top would all be visible. But if lines converge or recede from one another, in order that the idea of distance may be given, and as the lines to produce

this effect are—even in comparatively simple subjects—numerous, the intricacy of the drawings renders it a matter of extreme difficulty to take measurements from the various parts with that ease and facility which ought to be an essential feature in mechanical operations. A method of drawing objects, then, by which two or more views could be shown in one drawing, and *yet all measured from the same scale*, is of considerable importance. By isometrical perspective or projection, this desideratum is attained with great facility. The term projection, in its widest sense, means a plan or delineation of any object, but is also used by some writers and practitioners to distinguish the method of drawing in which the principal is involved of delineating the objects as if viewed at an infinite distance; this resulting in all the parts being drawn without the converging or diminution of parts visible in common perspective, from their being veiwed from the same distance. The methods by which objects are *projected* are very numerous, but it is foreign to the scope of our work to enter into a detail of their peculiarities; we shall confine ourselves to the elucidation of the simple rules of isometrical projection, which is the only mode by which the various parts of an object so delineated can be measured from the same scale. Professor Farish, of Cambridge, was the first publicly to elucidate the principles of this method of drawing, and he gave the name isometrical as indicative of its chief feature, from two Greek words signifying *equal measurements*. Isometrical projection gives the representation of the three sides of the cube, all of which are equal, and the boundary-lines of which are also equal. In drawing isometrically, the pupil is recommended in all cases to use the drawing-board and T-square; it will much facilitate his operations. The method of applying this style of drawing to the delineation of horticultural edifices is displayed in fig. 10. The length, breadth, and height are all shown in one view; the scantling and position of rafters, glass door, also clearly delineated; drawn to a common scale by means of the isometrical ruler, the measurements of the various parts can easily be taken.

ISTHMIAN GAMES (Greek festivals, so named from the Isthmus of Corinth). (See GAMES.)

ITALIAN ARCHITECTURE, *it-a'-yan*. A style of architecture founded on the old Roman orders, and the characteristic features of the ancient buildings of Rome, and which may be considered to have been initiated in Italy by Brunelleschi and the Italian architects of the day, in the 15th century, and brought to perfection by Palladio and other architects of eminence, in the 16th century, who flourished in the times of the Medici. In buildings designed both for public and private purposes, it is chiefly characterized by the use of the Roman orders of architecture, rather as decorative than constructive features. These are mainly obtained by the use of pilasters placed along the façade of each story of a building at intervals, each row of pilasters being surmounted by an entablature running along the entire length of the edifice, like a string-course. When engaged columns, or columns attached to the wall, and projecting from its face to the extent of one-half or three-fourths of their diameter, were used, the entablature was broken over each column, to pre-

vent the heavy appearance that it would have presented if it had been of the same depth throughout; and this was frequently done in the case of pilasters. The cornices of the entablatures were richly ornamented. The windows and doors were decorated with pilasters or columns, rising from a massive and projecting sill, and surmounted by circular, pointed, or broken pediments, on which recumbent figures were frequently placed. The roof was partially hidden by a balustrade, which crowned the edifice, and rose above the attic story, and the pedestals of the balustrade generally supported statues or sculptured vases. (See BALUSTRADE.) There are three styles or schools of Italian architecture—the Florentine, of which strength and grandeur are the prevailing characteristics; Roman, in which the old Roman style is more closely followed; and the Venetian, the most highly ornamented and picturesque. It was not until the 17th century that the style of architecture that had prevailed in Italy during the previous century was followed and copied in England. Many of the buildings erected during the reigns of the monarchs of the house of Stuart, by Inigo Jones and others, present good examples of this style; among which may be mentioned the Banqueting-house at Whitehall. Somerset-house, built after designs by Sir William Chambers, in 1775, and many of the modern club-houses, as those belonging to the Carlton, Reform, and Travellers' clubs are also built after this style.

ITALIAN LANGUAGE AND LITERATURE.—There are many theories as to the exact origin of the Italian language, and the subject is involved in considerable obscurity. Some writers on the subject seem to think that the harmonious tongue spoken by the sons of Italy has originated from an intermixture of the classic Latin with the barbarous dialects of the tribes that overran Italy after her fall. An Italian writer of the 15th century, Leonardo Bruni, surnamed L'Aretino, from his birthplace Arezzo, maintains the theory that the Italian language is coeval with the Latin, and that both were used at the same time in ancient Rome; the Latin by the learned and polished, and the Italian dialect by the common people. Two other writers, Cardinal Bembo and Francesco Saverio Quadrio, have maintained the same opinion since the time that Bruni wrote. The third theory on the subject of the origin of the Italian language is that of the Marquis Scipio Maffei. This writer rejects the opinion of Bruni and his disciples; for he reasonably lays down the argument, that "vulgarisms are not sufficient to form a language, nor to render it adequate to literature." He also rejects the theory first mentioned, that Italian was formed by the intermixture of the classic tongue with barbarous dialects; and the opinion he advances is, that the Italian language, as it stands at present, was formed by the gradual corruption of the classic Latin, without the intervention of any extraneous influence whatever. So much for the different theories on the subject. The first authentic specimen of the Italian language belongs to the close of the 12th century. It is a *canzone* of Ciullo d'Alcamo, by birth a Sicilian, and the earliest Italian poet whose name is on record. There is no doubt that the new language was opposed to the great variety of dialects which had grown into use after the invasion of the Northerners; but the formation of

it was indeed low, for the learned and the poets (from whom it was necessary for the infant language to receive its stamp and *entrée* into fashionable life) were averse to its introduction, as they deemed it a sorry scion of the classic Latin, which latter was esteemed both for its age and for its recollections of former greatness, which the Italians were only too eager to maintain, after the downfall of their empire. From the 12th century to the close of the 13th, but little was done to advance the Italian language; but Pier delle Vigne, secretary to the Emperor Frederick II., residing in the Sicilian court, had produced odes and canzones in very eloquent Italian; and afterwards came the glorious epoch of Dante, Petrarch, and Boccaccio. They were emphatically the giants of an early age, when gigantic strength was wanted to fix the uncertain foundations of their national language and literature on a scale broad and deep and massive. By such writers was the Italian language brought to the highest point of its literary culture before the close of the 14th century. From the commencement to the end of the 15th, and, indeed, until the middle of the 16th, there is nothing remarkable in its history; but at this latter date, a great contest arose with regard to it, which resulted in the complete triumph of the writings of Dante, Petrarch, and Boccaccio, and the firm establishment of the Italian language as a complete whole, both in the literary world and amongst the people generally. The Italian language, as it at present stands, is essentially a Latin dialect, although somewhat changed in its grammar and construction, by the infusion of the modern spirit into the antique, as the character of the people underwent the same change.

Italian Dialects.—There are seventeen leading dialects in the Italian, which may be ranked in the following order:—The Sicilian, the Calabrian, the Neapolitan, the Roman, the Nordan, the Tuscan, the Bolognese, the Venetian, the Friulan, the Paduan, the Lombardian, the Milanese, the Bergamasque, the Piedmontese, the Genoese, the Corsican, and lastly, the Sardinian. Of these the Sicilian is the first of the Italian dialects which was converted to literary uses; and it may be, in fact, called the mother tongue of the Italian muse, as Sicily is generally called her cradle. It exhibits traces, more or less, of the different dominant rulers of the island, and words may be clearly discovered which are undoubtedly of Grecian, Carthaginian, Roman, Byzantine, Arabian, Norman, German, French, and Spanish origin. We cannot touch in detail upon the different dialects individually. A few general remarks will suffice instead. The Florentine is that in which the greatest portion of the literary monuments of Italy is written, in consequence of the great poets and other authors being born at Florence, and hence using their native dialect. But there cannot be much doubt that the classic Italian tongue is based principally on the Tuscan dialect, which has done more to its formation than any other spoken throughout the length and breadth of Italy. The study of the language in modern times has much increased, and great pains have been bestowed on vocabularies, dictionaries, and other works of an educational class. Considered in any light, the Italian language is one of the most beautiful and harmonious of European tongues, and is rightly deemed to be the true medium for the interpretation of real poetic feeling. The liquid sound of the language is owing to the prevalence of labials and vowels throughout it, which, even in the roughest dialects, as in the Tuscan, which is more composed of gutturals, combined with the soft pronunciation peculiar to the sons of Italy, renders the Italian language the most euphonic in Europe—indeed, in the world.

Italian Literature may be divided into periods, according to the general plan pursued by historians on

the subject. In the first and second periods, which embrace the years between the era of Charlemagne and the peace of Constance in 1183, not much was done in Italy towards the spread of literature, the principal authors being not of much influence, either in a philological or ethical point of view. They are as follows:—In theology: the Popes Eugene, Adrian I., Leo V., Nicholas I., and Sylvester II.; also Paulinus, patriarch of Aquileia, and Theodolphus, bishop of Orleans. In the second period, the principal theologians were Fulbert, bishop of Chartres, and the two celebrated archbishops Lanfranc and Anselm. Among the historians, both of the first and second periods, may be mentioned Disconus, Andrew of Bergamo (author of a Chronicle of Italy from 868 to 875), Luitprandus of Pavia, Amolphus, Sire Raoul, and many obscure writers, too numerous to mention. In the third period, from the peace of Constance to the end of the 13th century, literature gradually made a considerable advance. The emperor Frederick I. may be said to be the prime mover in this desire for enlightenment, and his court was thronged by the learned in every branch, either of science, of art, or of literature. In philosophy, the most celebrated man we meet with in this era is Thomas Aquinas, who wrote a commentary on the works of Aristotle. In mathematics, Campano wrote a commentary on the works of Euclid; and many others, as Lanfranc, Leonardo, and Guido Bonatti, followed in his footsteps. The study of law became also greatly improved. In history, the name of Matteo Spinello must be honourably mentioned, as he wrote the first lengthy and complete work in Italian prose; but superior in style is Malespini, of Florence. The chief poets of the period were Guinello, Ghislieri, and Fabrizio, of Bologna; Lapo, of Mantua, and the Tuscan poets, Guittone, Bonagiunta, and Brunetto Latini, the instructor of Dante, famous and versatile. The fourth period, which embraces the whole of the 14th century, is, however, the grandest, as it is the starting-point in the real history of Italian literature. Albert of Padua, Gregory of Rimini, Bonaventura of Perugia, and Ludovico Marsigli, are the theologians of this period. Petrarch, the creator of Italian lyric poetry, and whose sonnets still rank with the finest productions of the kind, is the real philosopher of the times, who does honour to his country. Paolo, surnamed Geometria, is said by Villani to be the first of mathematical discoverers, and he likewise lived in this century. In history we have also Petrarch, who wrote the "Rerum Memorandarum;" and Boccaccio, who was the author of "De Genealogia Decorum," and many other works. Dino Compagni and Giovanni Villani contributed good work to the historical literature of this period. In this period also occur the first collection of Italian tales and romances; and here, again, we have to thank Boccaccio for his "Decameron" and "Fiametta," masterpieces of literature. (See DECAMERON.) Sacchetti and Giovanni Fiorentino wrote stories with great elegance. Dante, however, must be given the prime place in the literature both of this period and of his country in general. Of all his works, his "Divine Comedy" must rank highest (see DIVINA COMMEDIA); but he was also the author of the "Vita Nuova," the "Convito," and also his work, "De Vulgari Eloquentia" (in which he lays down the basis of the new Italian language), and his "De Monarchia." Among the minor poets of this period are Francesco Stabile, Francesco da Barberino, and Cino da Pistoia (who relieved his labours as a jurist by writing graceful amatory verses). Passing over the fifth period, which lasted from 1400 to 1500, and entering upon the sixth, or 16th and 17th centuries, we arrive at the most glorious of any in the literary history of Italy. The power of her republics and the magnificence of her princes had done much to restore the former splendour and greatness of the country, and Italy could well, at the time of which we are speaking, point proudly to herself as an example for the rest of Europe to follow. The number of academies and libraries had increased to such a degree, that few, even of the small cities, were without them, and learning, and a fostering of the arts, had spread likewise in a proportionate manner. Among the popes there were many who promoted this general desire for improvement; and the names of Julius II., Leo X. (the Magnificent), Gregory XIII., and Urban VIII., well deserve the prominence they occupy in history,

even on this account alone. Next must the princes be mentioned; for they were by no means behindhand with the popes in their activity for the spread of literature. Among these latter we come across the names of Gonzaga of Mantua, the Prince d'Este da Ferrara, the Medici of Florence, and Duke Charles Emanuel of Savoy. In history much was done, and well done too. Carlo Sigonio wrote a general history, in Latin; Girolamo Briani a similar chronicle, but in Italian; Machiavelli a "History of Florence," which latter must ever bear up the reputation of its author, and "The Prince," the work most nearly associated with his name—among many others who did something for history, but whose names even are too numerous to be even mentioned in the present article. In poetry, we have pre-eminently Ariosto, the author of *Orlando Furioso*, considered to be the first genuine epic of chivalry and romance; Bernardo and Torquato Tasso, the former celebrated for his Letters, and the latter for his *La Gerusalemme Liberata* (see JERUSALEM DELIVERED); also Pietro Badoaro, a poet of no mean repute; Alberto Lollio and Claudio Tolommei, besides many others. The novelists of this period were numerous indeed, and criticism was also beginning to be judiciously exercised, as we have evidence of in the attack and defence of Tasso's great epic. During the seventh period, which lasted from 1650 up to the year 1820, much cannot be said to have been done for Italian literature—the few names that occur, touching on the history of literature *per se*, being Crescimbeni, Quadrio Fontanini, A. Zeno, Mazzuchelli, Fabroni, Tiraboschi, and Comiani. Sarpi, Pallavicino, Bentuvoglio, Davila, and Giannone, produced good historical works; and in the 17th century, Marino, Tassoni, Elicajja, Metastasio, and the great dramatic writers Alfieri and Goldoni obtained eminence. Passing on to the last period, which embraces the years between 1820 and the present time, we must notice the decay of Italian literature, with, however, a hope of its rise again in future years, now that Italy has become once more a kingdom. The restraints which naturally arise in a country entrained by politics are undoubtedly one of the chief causes which have led to this fall, combined with the indolence induced by too warm a climate and one too favourable for idleness. Of the writers of this period, few occupy any prominent place, with the exception of Andrea Maffei, who has done much, both by original works and translations, for the advancement of literature. In science and art, the 19th century has not been unproductive to Italy, but in poetry and literature there has been a sad falling off from the noble era ushered in by Dante. One of the most conspicuous writers of the middle of the present century was Leopardi, the poet and Pessimist philosopher, of whom a recent critic says, "Everything is terrible and grand in these poems which are the most agonizing cry in modern literature, uttered with a solemn quietness that at once elevates and terrifies us. The poetry of despair never had a more powerful or a more sorrowful voice than this." Other authors of eminence are Battista Nicolini, a dramatist of rare powers; Ginski, the satirical poet; Manson, a novelist whose *Promessi Sposi* is widely known; D'Azeglio, a patriotic novelist; and Rossetti, the commentator on Dante. Several authoresses of established reputation, and vigorous writers on historical and economical subjects, living, or more recent writers of merit, are—historians, Vittorio Bersezio, Ruggiero Borghi, Bianchi, Ottolenghi, and Morosi; philosophy and art, Tasso Massarini, Mamiavi, and Bertolotti; in novels and the drama, Barilli, Givagnoli, Satmini, Montecoroli, Nerucci, Cacciapiaga, Cavallotti, Castelnovo, Muratori, and Sacchetti; in poetry, Chiarini, Regaldi, Paleczi, Gemma, Panzachi, Novelli, Franciosa, Procacci, the Marchesa Maria Ricci, Mazzoni, and Massarani; in criticism, literary history, and *belles lettres*, Emiliani Gindici, Settenbrini, De Sanctos, Bartoli, Del Lungo, Hortis, Manotti, Giniani, and Galanti. There is a host of minor authors, and numerous literary and scientific periodicals have been established.

ITINERARY, *i-tin'-e-ra-re* (Lat., *iter*, a journey).—The name given to a book containing a list of the stations and halting-places on a road between two places, with a statement of the distances between them. The most important

itineraries of antiquity are—1. the *Itineraria Antonini*, including the *Itinerarium Provinciarum*, or a list of the routes through the Roman provinces of Europe, Asia, and Africa, and the *Itinerarium Maritimum*, exhibiting the most frequented tracts along the coasts and at sea; and 2, the *Itinerarium Hierosolymitanum*, made by a Christian in A.D. 333, for the use of travellers from Burdigale (Bordeaux) to Jerusalem. Itineraries of districts little known, or unknown

to Europeans, are of importance to geographers and the makers of maps; as are, for our knowledge of the ancient world, the itineraries of antiquity.

ITIS, *i'-tis* (Gr., from *iemai*, denoting violent or impetuous action).—A termination added to the genitive case of the Greek name of an organ, to indicate inflammation of that part; as, *gastritis*, *hepatitis*, *carditis*; meaning inflammation of the stomach, liver, or heart.

J.

J is the tenth letter and the seventh consonant in our alphabet. Both the sound and the character originated in the vowel *i*. (See I.) Its sound in English resembles that of *dzh*, and in French it has the sound of *sh* or *zh*. In German it is always pronounced like our *y* before a vowel; as *ja*, pronounced *ya*. In Spanish it is a guttural, a little softer than the *ch* in *ach*. In Italian the sound is represented by *gi*. Its pronunciation in Latin is disputed; but there is reason to believe that the English sound was not unknown to them; for, originally, Jupiter was written *Diupiter*, and Janus, *Dianus*.

JACK, *jak*.—This nickname, or diminutive, for the name John (derived directly from the French *Jacques*) is used in various ways. It is difficult to explain why, in the principal modern languages, *John*, or its equivalent Jack, is a name of slight or contempt. The Italians use the word *Gianni* in this sense; from which *Zany* is derived. Amongst the Spaniards, *bobo Juan*, foolish John, and the French *Jean*, have a similar signification. The term Jack-fool is used by Chaucer. In Germany, *Hans*, the nickname for John, is used in the same way; as, *Hans Narr*, Jack-fool; *dummer Hans*, stupid Jack, &c. It is also singular that most nations give the name of their favourite dish to the mountebank's jesting attendant. Amongst the Italians he is called *Macaroni*; among the Dutch, *Pickel-herring*; among the French, *Jean potage*; among the Germans, *Hans Wurst*, Jack sausage; and amongst the English, *Jack pudding*. The name Jack, as expressive of something common and servile, became a prefix to the proper names of articles in ordinary domestic or mechanical use, or familiar objects, as Jack, for roasting; Jack, a leather bottle; bootjack; Jack towel; Jack plane; Jack-ass, and Jack-daw. Sailors are commonly called Jack, as a general name, with the addition "tar," indicating their connection with tarry ropes, &c. In card games, the knave, supposed to be a servant to the king and queen, is also known as the Jack. In the navy, one of the flags is called the Union Jack. (See ENSIGN.) The light sometimes seen in marshy places (see IGNE FATUUS) is popularly known as Jack o' lantern.

JACK. (See BOWLS.)

JACKET, *jak'-et*.—Diminutive of "Jack:" the name of a short coat, worn by working-men.

JACOB'S STAFF.—The name was popularly given to the staff carved by pilgrims to the shrine of St. James of Compostella in Spain.

JAMBS, *jambz* (Fr., *jambes*).—In Architecture, the sides of an aperture which connect

the two sides of the wall. The two vertical linings of a doorway or aperture, which connect two walls, are called the *jamb-linings*. Jamb-posts are such as are introduced sometimes on the side of a door, in order to fix the jamb-linings.

JANUARY, *jan'-u-a-ry*, the name of the first month of our year, so called from the god Janus, who is commonly represented with two faces, as it was considered both to look back upon the past year and forward to that which was coming. It was likewise the first month in the Roman calendar, to which it was added, together with February, by Numa. It was not uniformly, however, the first month of the year among the Latin Christian nations until the 18th century; and even in some parts of this country the year commenced with the month of March till 1751, when an act was passed adopting the Gregorian in place of the Julian style, and declaring that the legal year shall be uniformly deemed to begin on the 1st of January. Historians in describing events occurring in January, previous to the date mentioned, frequently give two years; thus, January 20, 1720-21, meaning that according to the old method the month would have been considered to belong to the first-named year.

JARL. (See EARL.)

JAVELIN, *jav'-lin*.—A short, light spear thrown against an opponent. It was much used by the Roman legions.

JEREMIAD, *je-re-mi'-ad*.—In Literature, an epithet applied to composition of a mournful or depressing character; a lamentation.

"JERUSALEM DELIVERED" (*Gerusalemme Liberata*).—The great Italian epic by Torquato Tasso, first published in 1581. The subject is the siege and capture of Jerusalem by Godfrey of Bulloigne, leader of the Crusaders. The author explains that his intention was to choose a great and wonderful subject, not so ancient as to have lost all interest, nor so recent as to prevent the facts embellishing it with invented circumstances. He meant to treat it rigorously according to the rules of the unity of action observed in Greek and Latin poems, but with a far greater variety and splendour of episodes, so that on this point it should not fall short of the romantic poem; and, finally, he would write it in a lofty and ornate style. He availed himself liberally of the privileges he claimed of treating his subject freely, introducing spiritual agencies as fighting against the Crusaders; Armida, an enchantress, female warriors, and many pathetic and tender love passages. The nominal hero is Tancred, but Rinaldo is really more conspicuous. Hallam, in the "Introduction to the Literature

of Europe," says, "The 'Jerusalem' is the great epic poem in the strict sense of modern times. It is justly observed by Voltaire, that in the choice of his subject Tasso is superior to Homer. In the variety of occurrences, the change of scenes and images, and of the trains of sentiment connected with them in the reader's mind, we cannot place the 'Iliad' on a level with the 'Jerusalem.' And, again, by the manifest unity of the subject, and by the continuance of the crusading army before the walls of Jerusalem, the poem of Tasso has a coherence and singleness which is wanting in that of Virgil." A recent critic says, "The 'Gerusalemme' is the best heroic poem that Italy can show. It approaches to classical perfection. Its episodes, above all, are most beautiful. There is profound feeling in it, and everything reflects the melancholy soul of the poet." There are translations into English by Fairfax, Carew, Hoole, Beattie, Hunt, and Wiffen. The most popular is that by Edward Fairfax, published in 1600, with the title "Godfrey of Bulloigne, or the Recoverie of Jerusalem, done into English Heroical Verse." The translation is very free, considerable liberties being taken with the Italian author, and original matter introduced. Mr. Hallam suggested that "imitated from Tasso" should be added to the title. Fairfax fancifully maintained that the poem was really an allegory. The crusading army typifies man; Jerusalem is Loftiness, situated on the summit of the steep hill Virtue; Godfrey, the leader, is the Understanding; the other princes are the other powers of the soul, and so on throughout all the characters and incidents of the poem.

JESSANT, *jes'-sant*.—In Heraldry, a term implying "springing forth," and applied to figures of animals or flowers rising from other emblems.

JESTER. (See COURT FOOL.)

JESUS COLLEGE, OXFORD.—This is the first Protestant college in the University. In 1571, Dr. Hugh Aprice, or Price, petitioned Queen Elizabeth to grant a charter for the foundation of a college. The Queen acceded to the request, and Jesus College was established, with a principal, eight fellows, and eight scholars. Another charter was granted in 1622 by James I.; and in 1685, the college was rearranged in accordance with the will of Sir Leone Jenkins, who added considerably to the endowments, and desired that the greater part of fellowships, scholarships, and exhibitions should be for the benefit of natives of Wales. There are twelve fellowships, of which one half are limited to natives of Wales or Monmouthshire, if any such be found of sufficient merit; the other moiety is open. Four of the fellows must be laymen, and all fellowships are vacated by marriage. There was, until recently, another fellowship, but that has been suspended for the purpose of founding a Professorship of Celtic. There are twenty scholarships, each of the value of £80, open to candidates under twenty-four years of age, natives of Wales or Monmouthshire, or who, for the four years preceding the day of election, or, if members of the University, the day of their matriculation, have been educated at certain free grammar schools in Wales. These scholarships are tenable until the end of the twentieth term for matriculation. Ten other scholarships of the same value are open without restriction as to place of birth. There are also about twenty-eight exhibitions for poor

natives of Wales or Monmouthshire. The library of the college is especially rich in English controversial divinity of the latter half of the seventeenth century. There are about two hundred names on the books.

JESUS COLLEGE, CAMBRIDGE.—This college was founded in 1496 by Bishop Alcock of Ely. There are sixteen foundation fellowships, and six of the fellows must be in orders. There are about forty scholarships and exhibitions, varying in value from £16 to £50 annually. Twenty of these are appropriated to the orphans or sons of clergymen. There are about one hundred and fifty students.

JEU D'ESPRIT, *zhe(r) des-pree'* (Fr., meaning a game of wit.—A term applied to a witticism formed from some unexpected association of ideas. Bouillet, in his "Dictionnaire des Sciences, des Lettres, et des Arts," enumerates charades, enigmas, acrostics, and similar efforts of genius, as coming under the general appellation of *jeu d'esprit*.

JEUX FLORAUX, *zhe(r) flor-ô'* (Fr., floral game).—The name given to a poetical contest held annually at Toulouse, in France, under the presidency of the *Académie des Jeux Floraux*. It originated in the early part of the 14th century, in an attempt by the citizens of Toulouse to revive the poetry of the Troubadours. Similar institutions were afterwards established at Barcelona and Tortosa, and the original institution began to decline, and at the end of the century was nearly extinct, when it was revived by Clemence Isaure, who left by will a considerable sum for the continuance of this festival. More costly flowers now rewarded the talent of the competitors. Four prizes were offered—an amaranthus of gold of the value of 400 livres, for the best ode; a violet of silver, of the value of 250 livres, for the best essay in prose; a silver pansy, value 200 livres, for an eclogue, elegy, or idyl; and a silver lily, value 60 livres, for the best sonnet or hymn in honour of the Holy Virgin. It afterwards took the name of *Académie des Jeux Floraux*, and was made to include a chancellor, 35 maintainers or judges, and 20 masters. Afterwards, in 1773, the office of chancellor was abolished. After an interruption of fifteen years, from 1790 to 1806, the academy again assembled for the awarding of prizes.

JEW, THE WANDERING, *ju*, a mythical personage who forms the subject of many popular traditions, originating probably in the passage in the Gospel of St. John (xii. 22, 23), where Jesus says of the beloved disciple John: "If I will that he tarry till I come, what is that to thee? Then went this saying abroad among the brethren that that disciple should not die; yet Jesus saith not unto him, He shall not die; but if I will that he tarry till I come, what is that to thee?" According to one account, he was a carpenter; and as our Saviour passed his workshop on his way to execution, the soldiers begged that he might be allowed to enter for a few moments and rest; but he not only refused, but insulted him. By another account he was a shoemaker, sitting at his bench as our Saviour passed to Calvary, and not only refused to allow him to rest for a few moments, but drove him away with curses. Jesus calmly replied, "Thou shalt wander on the earth till I return." Driven by fear and remorse, he has since wandered, according to the command of our Lord, from

place to place, and has in vain sought death amid all the greatest dangers and calamities to which human life is subject. The legend first appears in the Chronicle of Matthew Paris, in the 14th century, where the Wandering Jew is called Cartaphilus, and is said to have been a servant of Pilate. His name in the later legends is Ahasuerus. In the 16th and 17th centuries there appeared several impostors claiming to be the Wandering Jew. This legend has formed the subject of long poems by Schubart and Mosen; of a tragedy by Klingemann; of a mystico-philosophical drama by Edgard Quinet; of prose romances by the Rev. George Croly ("Salathiel"), Alexander Dumas the elder ("Isaac Lakadam"), Eugène Sue, M. Oelckers, and David Hoffman ("Chronicles selected from the Originals of Cartaphilus, the Wandering Jew," London, 1854); of the poem of the "Undying One," by Mrs. Norton; and of numerous small lyrical pieces. Gustave Doré has illustrated the legend in a most remarkable manner.

JEWEL, *ju'-el* (Ital., *gio-gello*, from *giogo*, delight).—A personal ornament formed of gold or silver, and ordinarily, but not necessarily, enclosing precious stones.

JEW'S-HARP, an insignificant instrument of music, the form of which is too well known to need description. It is a mere plaything, and is totally incapable of being played in conjunction with either the voice or other instruments; its sounds are produced by holding it between the teeth and striking the projecting end of an iron spring with the finger. The name is most probably a corruption of the French *jeu-trompe*, a trumpet to play with; or it may come from what seems to be its proper name, and what it is often called, *jaw's harp*, from its being played between the teeth.

JEWISH ERA AND CALENDAR.—Dates are reckoned from the Creation, which the Jews consider to have been 3760 years and 3 months before the commencement of our era. The Jewish year consists of either 12 or 13 months of 29 or 30 days. The civil year begins with the month Tisri, immediately after the new moon following the autumnal equinox; the ecclesiastical year begins with the month Nisan, generally in March or April, according to the period of the full moon.

JIG, *jig* (Ital., *giga*, Fr., *gigue*).—A quick, animated dance tune, supposed to have been of English invention, although the term is derived from the Teutonic *geig*, or *gheige*.

JOHN BULL, *jon*.—A collective name, used in a sportive manner in order to designate the English people. It was first employed by Dean Swift. Amongst the English themselves, the term is used in order to convey the idea of an honest, blunt, but, on the whole, good-natured character. The *Punch* artists, especially Mr. Tenniel, represent John Bull as a stout, healthy, curly-headed man, of the farmer type, wearing breeches and top boots. Such a figure may be typical of the old style of yeoman; but something very different is needed to represent the representative Englishman of the present day. Amongst foreigners, the term *John Bull* is employed in order to express the insular peculiarities and prejudices of the English nation, and especially their inability to accommodate themselves to the circumstances of foreign countries.

JOHN'S, EVE OF ST.—A festival celebrated on Midsummer Eve, in the Middle Ages. Large fires were kindled in the principal streets and market-places of towns, and sometimes blessed by the Jewish priests, who offered up prayers and praises; but more commonly the celebrations had little to do with any religious observances. Young people danced round and leaped over the fires, and threw flowers and garlands into them. In England, people used to fetch branches of trees and place them over their doors. It was a superstitious belief in Ireland that on this night souls leave the bodies and wander to the places where the death of the body will occur. In some parts of England, it was thought that those who passed the night in watching and fasting in the church porch would see the spirits of those persons who would die in the course of the next year. The customs were doubtless of heathen origin, and like some similar observances, were sanctioned by the Church on the principle that what could not be at once eradicated must be made the best of.

JOHN'S, ST., COLLEGE, OXFORD.

—In 1555, Sir Thomas White founded a college dedicated "to the honour of God, the Virgin Mary, and St. John the Baptist," on the site of an older institution founded in 1456 by Archbishop Chichele for monks of the Cistercian order. The college is now known as St. John's, or the College of St. John the Baptist. There are 18 fellowships, open to all persons who have passed the examinations for the B.A. degree; two-thirds of the fellows must be in holy orders, and fellowships are vacated by marriage. There are, besides, four fellowships founded in 1854, tenable for fourteen years, and of the annual value of about £180. They are open, with certain limitations, first to the kindred of the founder (Mr. Dudley Fereday); secondly, to natives of Staffordshire; and, in case of a founder's kin or Staffordshire candidate not satisfying the conditions, then to any other persons. There are 39 scholarships, 21 of which are for youths who have been educated at Merchant Taylor's School, or, in default, at Christ's Hospital; and seven appropriated to Coventry, Bristol, Reading, and Tunbridge Schools; or, in default, to open competition. The other scholarships are of the value of £80 to £100, and are tenable for four and five years.

JOHN'S, ST., COLLEGE, CAMBRIDGE.—A college founded by Lady Margaret, Countess of Richmond and Derby, and mother of King Henry VII., in 1511. She died before the full completion of her designs, and much difficulty was experienced in establishing the college on as large a scale as was originally intended; but by the exertions and munificence of Fisher, Bishop of Rochester, then chancellor of the university, and others, sufficient funds were obtained to endow thirty-two fellowships. This number was afterwards augmented by numerous subsequent benefactors. The college now consists of a master, fifty-six fellows, and sixty foundation scholars, the fellowships and scholarships being open to all British subjects, without any restriction or appropriation. Candidates for fellowships must be bachelors of arts, law, or medicine; and all fellows, except those holding the office of tutor, professorship (not with more than £800 a year), and some university office, &c., are obliged to be in priests' orders within seven years from the degree of M.A. The value of a scholarship

is £50 per annum, and is tenable till the scholar shall become of standing to be an inceptor in arts. There are also eight minor scholarships, tenable for two years, six special studentships, and a number of exhibitions attached to this college. There are about 420 undergraduates.

JOSEPHUS, HISTORIES BY.—

Flavius Josephus, born at Jerusalem 37 A.D., wrote several learned and very valuable historic works, some of which occupy a permanent position as classical works, especially the "History of the Jewish War" and "Jewish Antiquities." His style is easy and graceful; and he exhibits great impartiality and freedom from merely traditional influences. The best known English version is that by Whiston, first published in 1737, and since frequently reprinted.

"JONATHAN, BROTHER," *jon'-a-than*.

—The familiar generic name for citizens of the United States, as John Bull is for Englishmen. It is said to have originated in Washington's reliance for advice and support on Jonathan Trumbull, governor of Connecticut. When Washington encountered a difficulty, he frequently said, "Let us ask brother Jonathan."

JOUGS, *joogs*.—An iron collar fastened to a short chain, fixed to a wall in some public place, for the punishment of offenders. The ring is placed round the neck, and the culprit is then exposed for a certain time in a sort of pillory.

JOURNAL, *jur'-nal* (Ital., *giornale*, daily).

—This word denotes, properly, a record of daily occurrences; but it is commonly applied to a newspaper, magazine, or other periodical publication.

JOUST. (See TOURNAMENT.)

JUAN, DON. (See DON JUAN.)

JUGGLERS, *jug'-glers*.—Persons who perform tricks of legerdemain by quick and artful motions of their hands, bodies, and limbs, and, by various preparations, delude the senses, so that the spectators fancy that they hear and see what they really do not hear and see. The word is derived from the Provençal *joglar*, a corruption of the Latin *joculator*, and was the name given to the instrument-players who accompanied the troubadours, and who are said to have afterwards employed themselves in tricks and games. This art is one of great antiquity, and in early times was employed as a means of sustaining the power of the priesthood. The magicians of the ancient Egyptians, Persians, &c., were of this class; and doubtless most of the miracles ascribed to the heathen deities were effected by sleight of hand. Feats of agility, as tossing knives and balls, balancing the body in the most dangerous positions, were practised in ancient as well as in modern times. Ancient jugglers performed extraordinary feats by mechanism, which is defined by Cassiodorus as "the science of constructing machines whose effects shall seem to reverse the order of nature." The Egyptian priests made gods and statues which prophesied and explained dreams. In the East, particularly in India and China, jugglery is largely practised, and brought to great perfection as an art. Many of the tricks of modern Eastern jugglers have not yet been found out.

JULIAN ERA. (See CALENDAR.)

JULIAN PERIOD, *ju'-le-an*.—An arbitrary

period of time invented by Joseph Scaliger about 1580, and produced by multiplying the solar cycle 28 by the lunar or Metonic cycle 19 and the Roman indiction 15. It was introduced by Scaliger to enable dates of events occurring before the Christian era to be computed more readily, as authorities differ to so great an extent in the dates that are assigned to the creation of the world. The Julian period consists of 7980 years, and is considered to have commenced 4713 years before the Christian era. To express the date of any event happening before the Christian era in terms of the Julian Period, subtract the date itself from 4714; but, to reduce any year A.D. to the corresponding date of the Julian period, add the date of the year to 4713. Thus, the year 1882 A.D. is the year (4713+1882) 5595 of the Julian period.

JULUS, *ju'-lus*.—A genus of *Myriopoda*, sometimes known as Snake Millipedes and halby-worms. There are many species, some British. The general form resembles that of the centipedes, but they have many more feet, and there is an absence of poisonous fangs. They feed chiefly on decaying vegetable substances. When alarmed, they roll themselves up into coils.

JULY, *ju'-li'* (Lat., *Julius*), the name of the seventh month of the year. It formed the fifth month of the old Roman year, and was called *Quintilis* by the Romans; but shortly after the calendar had been rearranged by Julius Cæsar, the name Julius was given to this month by Marc Antony, in honour of Cæsar, whose birthday fell on it. It contains thirty-one days. The Anglo-Saxons named it Meadmonath.

JUNGLE, *jun'-gl*.—A word taken from the Bengalee, and applied to thickets of shrubs, reeds, tall grasses and trees, abounding in many parts of India, and generally infested with wild animals.

JUNIUS, *ju'-ne-us*.—The name assumed by a political writer, whose letters appeared in Woodfall's "Public Advertiser" between 21st January, 1769, and 21st January, 1772. After their completion, they were published collectively, including those signed Philo-Junius, and those of Sir William Draper and Horne to Junius. Besides these (59 in all), there are 113 letters on various political subjects, and under different signatures, as Mnemon, Atticus, Lucius, Brutus, &c., which appeared in the "Public Advertiser" between 28th April, 1767, and 12th May, 1772, and which are attributed to the same hand. Some of these are of doubtful authenticity. There have also been preserved 62 brief business letters, addressed by him to Woodfall, between 20th April, 1769, and 19th January, 1773, and 10 letters written by him in private correspondence with John Wilkes, between 21st August and 9th November, 1771. The utmost period, therefore, in which the agency of Junius can be traced, is less than six years, and the period within which he wrote his acknowledged letters exactly three years. The letters of Junius were directed against the ministry and the public characters connected with it, and excited the greatest public interest. The classic purity of their language, the exquisite force and perspicuity of their argument, their studied and epigrammatic sarcasm, dazzling metaphors, and fierce and haughty personal attacks, attained for them a popularity which no series of letters ever possessed, and arrested the attention of the government as well as the pub-

lic. Not less startling was the intimate and minute knowledge which they evinced of court secrets, showing an intimate acquaintance not only with ministerial measures and intrigues, but with every domestic incident. Every effort was made by the government to discover the author of these letters, but in vain, and the authorship is nearly as much matter of uncertainty now as it was then. Many volumes have been written on the subject, and nearly fifty individuals have had their claims advocated to be considered that personage. Among the best known we may mention Sir Philip Francis, Edmund Burke, his brother William, Earl Temple, Lord Chesterfield, George Grenville, Lord Sackville, James Grenville, Thomas Lord Lyttelton, Horace Walpole, John Horne Tooke, John Wilkes, Charles Lloyd, Samuel Dyer, and others. Several of these persons laid claim to the honour of which they were ambitious. The strongest case appears to be made out in favour of Sir Philip Francis, though even here there are difficulties which it is hard to get over. The first attempt to fix the authorship upon Sir Philip Francis was made in 1816 by John Taylor, in his "Identity of Junius with a distinguished Living Character established." The arguments are drawn principally from external considerations;—his absence on a journey to the continent coincides with an interruption to the letters; his departure for India, with a high appointment, with their cessation; his receiving that appointment without any apparent cause, just after being dismissed from the War-Office; his station in the War-Office, with all the details of which Junius is so familiar; his knowledge of speeches delivered in the House of Commons, reports of which had been furnished by Francis; coincidences of thought and expression between the letters and speeches of Sir Philip Francis and the letters of Junius, and certain peculiarities of spelling which were common to both; resemblance of the handwriting. More recently, various other points have been brought out in favour of Sir Philip Francis; so that, according

to Macaulay, "the case against Francis, or, if you please, in favour of Francis, rests on coincidences sufficient to convict a murderer." One strong objection urged against Francis is, that he never before or after exhibited any proofs of a capacity or knowledge equal to the compositions of Junius, and that when the first letters were written he was only 27 years of age. It is further said, that Sir Philip Francis never directly denied his being the author; and Lady Francis affirmed that his first gift to her after marriage was a copy of "Junius;" and that he made a posthumous present to her of a sealed copy of Taylor's "Identity of Junius," found in his bureau. According to her, he made himself known as Junius to the king, Lord North, and Lord Chatham, under an engagement of secrecy, and received, in consequence, his Indian appointment. Mr. Merivale, in his "Memoirs of Sir Philip Francis," strengthens the evidence in favour of the theory that he was the writer; and some experts in handwriting have declared that the known letters of Junius and Sir Philip were written by the same hand; but similar resemblances are shown in the hand-writing of Mr. Dayrolles, private secretary and amanuensis to Lord Chesterfield, and also in that of other persons. The late Lord Chief-Justice Cockburn was engaged in investigating the evidence as to the identity of Junius, but did not live to complete the task, which was much hindered by the long duration of the Tichborne trial.

JUNONIA, *ju-no'-ni-a*.—Festivals held at Rome in honour of Juno. The first was held 431 B.C.

JUPON, or **JUST-AU-CORPS**, *jhu'-pon-jhust-o-kor'*.—A short, tight form of military garment in use in the fourth century. The name *jupon* is now applied to underskirts worn by ladies.

JUSTE MILIEU, *zhooste, me'-leu*.—A French phrase signifying the true middle course, the "just mean" between extremes.

K.

K, *kai*, is the eleventh letter and eighth consonant in our language. Its sound is that of *c* when that letter is before the vowels *a*, *o*, *u*, and the two are sometimes interchangeable, as, in German, *carl* or *karl*; Latin, *kalendæ* or *calendæ*. **K** was borrowed from the Greek *kappa*, or the Oriental *kaph*, and finds only an ambiguous place in occidental languages. Sallust, a Roman grammarian, attributes its introduction into the Latin to one Salvius; and Priscian looked upon it as a superfluous letter, and says that it was never used but in words derived from the Greek. Quintilian denies it a place in the Latin, and blames its use even in such words as *kalendæ*, *kalumnia*. **K** alternates, in the Semitic languages, with *g*, *i*, *q*, *h*, *kh*, *ghain*; and in the Indo-European with those letters and with *c*, *j*, *y*, *v*. In English, *k* is for the most part used only before *e*, *i*, and *n*, in the beginning of words, as *ken*, *kill*, *know*, and the like. Formerly it used to be joined with *c* at the end of words, as in *publick*, *music*; but it is now commonly omitted, except in words of one syllable, as *jack*, *block*. In some two-syllable words, however, as *bullock*,

hillock, it is retained. Among the Romans, slanderers used to be branded on the forehead with *k* (*kalumnia*).

KAABA, *ka'-a-ba* (Arabic, square house).—The name of a building within a famous mosque in the city of Mecca, and the object of as much veneration to Mohammedans as the Holy Sepulchre is to Roman Catholics. It is an oblong edifice of fine grey granite, standing in the centre of a large open court; and is about 55 feet in length by 45 in breadth, and about 40 feet high. It is surrounded by a covering of black silk (renewed annually and embroidered with sentences from the Koran), hanging down from the roof, with a golden band running round the top, and a golden curtain in front of the door. The door, by which free admission is granted only three times in the year, once for men, once for women, and once for cleansing the interior, is in the north-west side, about seven feet from the ground, and is covered with silver and adorned with ornaments of gold. The entrance is gained by a flight of steps of carved wood, which is moved

away on rollers when not used. The interior is plain, and destitute of windows, or any other opening besides the entrance, except a small door, called the *Bab el Taubah*, or Gate of Repentance, leading to a staircase by which access is gained to the roof. The floor and walls consist of a sort of chequer-work of marble, of various colours, principally white, and the roof and top part of the walls are covered with red damask embroidered with gold. The *Hajar el Aswad*, or black stone, which is the object of so much adoration on the part of pilgrims, and indicates the direction towards which Mohammedans must turn in their prayers. This stone is supposed to have come from Paradise with Adam. A legend says that it was originally white, but has shed so many tears for the sins of mankind that it has turned black. It stands at the east corner of the building, at the height of four or five feet from the ground, and is composed of a number of small stones, cemented together, and carefully smoothed, having the appearance of having been broken in pieces and then mended. The constant wear which it has undergone at the lips and hands of worshippers renders it extremely difficult to determine the nature of the material; but most travellers regard it as of volcanic origin; and, according to Burton, it is a large aërolite. On the outside, in the south-west wall, is a stone of a dark-red colour, which is also touched and kissed by the devotees. The edifice is surrounded by an enclosure of columns, outside of which are three places of devotion for different sects. On the north-west side of the Kaaba are situated what are said to be the graves of Ishmael and Hagar, inclosed by a semi-circular wall five feet high and four feet thick, covered with white marble. The *Zenn-Zenn*, or sacred wall, said to be that of Hagar, is inclosed in a square substantial building, opposite the east corner of the Kaaba. The Mohammedans believe that Adam worshipped on this spot, in a tent sent down from heaven for the purpose, and that Seth substituted for it a structure of clay and stone, destroyed by the Deluge, but subsequently rebuilt by Abraham and Ishmael. That an edifice stood on the spot from time immemorial seems quite certain, and the Arabs used it as a place of idolatrous worship.

KALEIDOSCOPE, *kal-i'-dos-kope* (Gr., *kalos*, beautiful; *eidos*, form; and *skopos*, view or sight).—An optical toy, suggested by Baptista Porta and Kircher, but invented and perfected by Sir David Brewster. By a peculiar arrangement of mirrors, or reflecting surfaces, it produces the appearance of a perfectly symmetrical pattern, which undergoes an endless variety of changes, by turning the tube in which the mirrors are fixed. It is chiefly useful in furnishing ideas to designers of patterns for paper-hangings, carpets, &c., and any woven or printed fabrics in which symmetry of design is desirable. The simplest form of kaleidoscope consists of a cylinder of tin, in which two plane rectangular mirrors of polished metal, or of glass, having the back blackened, or fixed at such an angle of inclination to each other as may be obtained by dividing 360° by the numbers 3, 4, 5, 6, 7, 8, &c. The cylinder is covered at one end with a circular plate of metal, having a small hole in the centre, while a rim of metal is fitted over the other end, which is so constructed that two circular pieces of glass may be fixed in it, at a short distance from each other, having some pieces of coloured

glass, beads, lace, feathers, &c., in the space between them. The piece of glass that is placed at the extreme end of the cylinder should be ground glass, so that while the light is admitted into the interior of the instrument, external objects may be prevented from becoming perceptible to the observer. An angle of 60° is perhaps the best angle of inclination for the mirrors, as it may be readily determined, and affords a six-fold repetition of the pattern, which presents a tolerably uniform appearance of colour in all parts. Kaleidoscopes are made in which the angle of incidence of the mirrors may be varied at pleasure, and by the aid of a lamp and a system of lenses in connection with the instrument, the pattern may be projected on a screen, in an enlarged form, like the image thrown from a slide in a magic lantern. A pleasing effect of a similar nature, in which the images of the original object are multiplied, and produced in different directions, may be produced by fitting the edges of three, four, or six trapezoidal mirrors together, so as to form a hollow prism, and putting them into a tube, similar to that in which the two mirrors of the ordinary kaleidoscope are inserted. Instruments of this kind, which were invented by Dr. Roget, are called polycentral kaleidoscopes.

KERI-CHETIB, *ke'-re kel'-ib*.—A term applied to various readings in the Hebrew Bible. The signification of *keri* is that which is read; while *chetib* means that which is written. The number of *keri-chetibs* is estimated at a thousand, and most of them are attributed to Ezra; but, as several connections of this kind appear in his own writings, it is probable that many were made at some subsequent period.

KHAN, *kan*, is a Tartar word, signifying 'sovereign or chief. It is a title adopted by the sovereign princes of Central Asia, and is one of the titles of the Turkish Sultan. It was first assumed by Gengis when he became supreme ruler of the Moguls and Tartars. In Persia the word is used in a more extended sense, being applied to governors of provinces and officers of a certain rank.

KING'S COLLEGE, LONDON.—An educational institution occupying the east wing of Somerset House, which was built up to receive it, having before been left incomplete. The site was presented to the college by George IV. King's College owes its origin mainly to the opposition made by the friends of the Church to University College, on the ground of theology having no place in its curriculum. The fundamental principle on which it was established was, "that every system of general education for the youth of a Christian community ought to comprise instruction in the Christian religion, as an indispensable part, without which the acquisition of other branches of knowledge will be conducive neither to the happiness of the individual nor the welfare of the state." A charter of incorporation was granted in 1827. The queen is patroness of the institution, and the archbishop of Canterbury is visitor. The official governors are the Lord Chancellor, the Archbishop of York, the Bishop of London, the Lord Chief Justice, the Secretary of State for the Home Department, the Speaker of the House of Commons, the Lord Mayor, and the Deans of St. Paul's and Westminster. There are 32 professors and lecturers, besides 18 directly

connected with the medical school, which is one of the most important in London, and in connection with which is King's College Hospital, near Lincoln's Inn Fields. An evening class department affords great facilities for the tuition of persons whose ordinary avocations will not permit them to attend as ordinary students. Rooms are provided within the walls of the college for a limited number of matriculated students, under the superintendence of the censor. There is also a school in connection with the college.

KIOSK, *ki-osh'* (Turkish).—A pavilion or summer-house, with a tent-shaped roof open on all sides, and isolated. It is generally square in shape, and supported by pillars, round the foot of which is a balustrade. From Turkey and Persia, the kiosk has been introduced into the English, French, and German gardens. In Paris kiosks are erected for the sale of newspapers in the principal streets and open places.

KIT.—A little fiddle used by teachers of dancing.

KIT-CAT CLUB.—An association, founded in London about 1688. It was originally formed for convivial purposes, and met in Shire Lane, in the house of Christopher (Kit) Cat, who supplied the members with mutton pies, and gave name to the club. Most of its members being Whigs, it gradually assumed a political character, and came to be regarded as the headquarters of the friends of the Hanoverian succession. It comprised among its members, Addison, Steele, Walpole, Marlborough, and Sir Godfrey Kneller. It was dissolved in the year 1720. The fame of the club has been chiefly handed down by the collection of portraits of the members, painted by Sir Godfrey Kneller, now in the possession of a gentleman in Hertfordshire.

KITE.—A well-known toy, formed of a slender framework of wood and packthread, and terminating in a curve at one end and in a point at the other; the whole being covered with linen or paper. Near the centre of gravity, a long string is attached, the end of which can be held in the hand. In order that the kite may be raised in the air, it is necessary that its flat surface be held obliquely to the direction of the wind. To effect this, a string or *tail*, carrying some light substance, is attached to the pointed end of the kite, and thus the proper inclination is maintained by means of its gravity. The kite was first used by Benjamin Franklin in America, and Romas in France, to show that lightning and the electric spark are identical.

KLATTERDATSCH, *klat'-ter-dash*.—A German satirical and humorous publication, having some resemblance to the English *Punch*.

KNAVE, *naiv*.—An old Saxon word, which, in its original signification, denoted a boy; whence a knave child is used by several old writers to denote a boy, as distinguished from a girl. Afterwards it came to signify a servant boy, and at length any male servant. It was also applied to the servant or officer that bore the weapon or shield of his superior. That meaning appears to have originated the knave in a suit of cards as an attendant on the king and queen. In its present use it denotes a false, dishonest, or deceitful fellow.

KNOT, *not*.—Knots of an ornamental and

sometimes very complicated kind are woven in heraldic badges or monograms, and occasionally appear as charges on shields.

KOBOLD, *ko'-bold*.—A German word signifying a spirit, which differs from the spectre in never having been a living human creature. It corresponds to the English *goblin*, of which it is probably the origin. The kobold is said to be connected with a house or a family, and always to appear in human shape. In mines they are believed to appear, sometimes in the form of a blue flame, sometimes in that of a dwarfish child, and to point out rich veins. The name of the metal *cobalt* is derived from this word.

KOHINOOR, *ko-e-noor'* (Hind., *koh-i-noor*, mountain of light).—A large diamond in the possession of the British crown, said to have been found in the mines of Golconda in the middle of the 16th century, which weighed nearly 800 carats in its rough state. It belonged, in turn, to Shah Jehan and the Indian monarchs of the Mogul dynasty, and at last came into the hands of Runjeet Sing, the powerful ruler of the Punjab. When this territory was annexed to the British empire, the kohinoor, the weight of which had been reduced to 279 carats by the unskilfulness of the lapidary that had been engaged to cut and polish it, was added to the crown jewels, and presented to her Majesty in 1850. It formed a feature of interest in the Industrial Exhibitions of 1851 and 1862; but its appearance in each was widely different, as it was recut in 1852 by M. Coester, an eminent lapidary of Amsterdam, who was engaged for the purpose by Messrs. Garrard, to whose care the work was entrusted. The lustre and brilliancy of this superb gem, which may be described as conoidal in form, was materially increased by the operation, which occupied several weeks; but its weight was reduced. (See DIAMOND.)

KRAAL, *kra'-al*, a Dutch term, signifying stockaded places, within which the dwellings of the Hottentots in South Africa stand. Thus, one kraal can contain several huts. The word is also used in order to denote a large space railled off with strong stakes, into which wild beasts are driven by hunters. The inclosures surrounded by strong palisade-work, into which the elephants are driven in Ceylon, are called kraals.

KRAKEN, OR **KRAXEN**, *kra'-ken*.—A name given in the fabulous epoch of natural history to a sea-monster of enormous size. Bishop Pontoppidan, in his "Natural History of Norway," gives an entertaining, if not very satisfactory and accurate, account of this surprising creature. The term, he says, is applied by way of eminence to the fish otherwise called *horven*, *soe-horven*, *aucker-troll*, and *kreuzfisch*, which is the largest sea-monster in the world. According to the learned bishop, the kraken is round, flat, and full of branches. Its back, or upper part, which seems to be, in appearance, about an English mile and a-half in circumference—some say more, but I choose the least for greater certainty—looks at first like a number of small islands, surrounded with something that floats and fluctuates like sea-weed. The arms or tentacula are described as of enormous size, capable of seizing and dragging down large ships. So many remarkable stories have been related, by apparently credible writers, of the appearance of enormous inhabitants of the sea, that it is not safe to reject entirely the accounts of the kraken and sea-

serpents, whatever allowance we may make for exaggeration.

KRIEGSPIEL, *kreib'-speel*.—A game much practised in the German army, in which the manoeuvres of troops are imitated on a surface, especially with reference to the quickness of movement. The various corps are represented by cubes of lead of different sizes and colours. An impartial person sets a task or "idea" on the board, which is hidden from the two players till the game begins; and the "impartial" also acts as umpire in cases where each claims the advantage.

KTISTOLATRÆ, *tis-tol'-a-tre* (Gr., *ktistos*, created).—A branch of the Monophysites, which maintained that the body of Christ, before His resurrection, was corruptible.

KUFIC WRITING, *ku'-fik*.—An ancient form of Arabic character, adapted from the old Syria form. It was introduced in the 6th century. Many coins with kufic inscriptions are preserved.

KUSSIER, *kus-seer'*.—A Turkish musical instrument, somewhat resembling the ancient lyre. It consists of five strings, stretched over a skin that covers a kind of basin.

L.

L is the twelfth letter of our alphabet, and is derived from the old Hebrew *lamed* (ox-goad), or the Greek *lambda*. In the ancient Greek, the Celtic, and the Etruscan alphabets, it is formed by two straight lines making an angle with each other. It is one of the four liquids of grammarians (*l*, *m*, *n*, *r*), and is sounded by placing the tip of the tongue against the upper incisor teeth, while the breath issues at its sides, and the larynx vibrates; whence it is called a linguidental letter. In English it is often mute before consonants, as in *could*, *calm*, *psalm*, &c. It is wanting in some languages, as the Japanese, where *r* is used instead. The Romans often put *l* for *r* in words taken from the Greek, as the Italians have done in words taken from the Latin. It also interchanges with *n*, *m*, *d*, *i*, *u*. In the Lowlands dialect of Scotland, it is generally mute at the end of words as in *fa' for fall*. In modern French it is frequently softened into *u*, as in *chevaux*, instead of *chevals*. As a numeral, **L** denotes 50, and with a dash over it, 5,000.

LA, *la*, in Music.—The monosyllable by which Guido denominated the last sound of each of his hexachords. It answers to the note *A* in the natural hexachord, and is applied to that note in sol-fa-ing.

LABARUM, *lab'-a-rum*.—The name given to the standard of Constantine, which he adopted in commemoration of the vision of the cross which he saw in the heavens. It is described by Eusebius as a long gilt spear, with a cross-beam towards the top and a golden crown on the summit, inclosing the two first letters of the Greek name of Christ, intersecting each other, and representing the form of a cross. From the cross-beam was suspended a purple banner of silk, decorated with precious stones, with images of the emperor and his children inwrought into it.

LABEL, *lai'-bl* (Ang-Nor).—In Heraldry, a figure, consisting of a fillet, with three or more pendants attached, used chiefly to distinguish the arms of an eldest son during the life of his father; also employed to distinguish them from those of the younger son. The label is considered the most honourable of all differences, and is formed by a fillet generally placed in the middle and along the chief of the coat, without touching its extremities.

In Architecture. (See DRIFSTONE.)

LABIALS, *lai'-be-alz* (Lat., *labium*, a lip).—

In Grammar, a term applied to certain letters of the alphabet, on account of their being chiefly formed by the lips. They are *b*, *p*, *v*, *f*, *m*.

LABYRINTH, *lab'-er-inth* (Lat., *labyrinthus*).—A place, usually underground, with numerous and intricate passages, which it is impossible to traverse without a clue. Three famous labyrinths are mentioned in ancient history. The earliest and most renowned was that of Egypt, situated at Arsinoë, near Lake Mœris. Herodotus visited it and describes it. It had 3,000 apartments, 1,500 underground and the same number above it, the whole being surrounded by a wall. It was divided into courts, each of which was surrounded by colonnades of white marble. It was extant in the time of Pliny. Ruins at the modern village of Howara, in Fayoom, have recently been identified with those of the labyrinth. The second labyrinth was that of Crete, in the neighbourhood of Cnossus, said to have been built by Dædalus, at the command of King Minos, as a place of confinement for the monster Minotaurus. It was built on the model of that of Egypt, but on a much smaller scale. None of the ancient authors who have left accounts of it seem to have seen it, and no traces of it are now to be found; hence modern writers generally deny its existence. A third labyrinth was that in Lemnos, commenced by Smilis, an Æginetan architect, and completed by Rhæcus and Diodorus of Samos, about the time of the first Olympiad. It was similar in structure to the Egyptian, from which it was distinguished only by a greater number of columns. Remains of it were still extant in the time of Pliny. A similar structure was said to exist on the island of Samos, but no particulars of it are known. (See MAZE.)

LACHRYMATORY, *lak'-re-ma-to-re*, is a small vessel of glass or earthenware, generally having a long neck, and found in the tombs of the ancients. It was long the opinion of antiquaries that these were intended to hold the tears of the relatives and friends of the deceased; but it is more generally held now that they were used for the purpose of containing perfumes. That in some of the ancient nations, the practice of preserving tears in lachrymatories was observed, would appear to be proved by the words in Psalm lvi. 8, "Put thou my tears into thy bottle."

LACONISM, *lak'-o-nizm*.—A short, pithy, and pointed saying, for which the ancient Lacedæmonians were remarkable; whence the name

(from *Laconia*). One of the most remarkable of the ancient laconisms was that of the Spartan mother to her son, on presenting him with his shield—"With it, or on it,"—either bring it back, or be carried back upon it.

LACS D'AMOUR, *lak-da-mour'*.—In Heraldry, a cord of running knots surrounding the arms of widows and unmarried women.

LACUNAR, *la-ku'-nar*.—In Architecture, a pannelled ceiling, much used in porticos and other classical structures.

LADY, *lai'-de*.—A term supposed to have signified originally loaf-giver (Goth., *klaif*, loaf, and *dian*, to serve or distribute), from the practice of the wives of the rich distributing bread to the poor or to their domestics. Tooke derives it from *hlifian*, to lift, i.e., one raised to the rank of her husband. As a title of honour, it is the co-relative of lord, and is given to peeresses in their own right, the wives of peers, and of peers by courtesy, being prefixed in these cases to the peerage title. It belongs, of right, to the daughters of all peers above the rank of viscount, who are designated by the title Lady prefixed to their Christian names, but in case of marriage with a peer the title Lady is discontinued, and the title of the husband's rank taken, even should a loss of precedence be the result. It is extended by courtesy to the wives of baronets and knights. In common usage, the term is employed in speaking of the women of the upper classes generally.

LADY CHAPEL.—A chapel attached to some cathedrals and large churches, and dedicated to the Virgin Mary, "our Lady." It is usually to the east of the altar.

LAGRIMOSO, *la-gre-mo'-so* (Ital., tearfully).—In Music, a term indicating that a passage is to be sung or played with a mournful expression. *Lamentoso* expresses an even more pathetic rendering.

LAIRD, *laird* (Sax., *hlaford*).—A word in the Scottish dialect properly signifying the lord of a manor, a proprietor holding his lands immediately of the crown. It is in common language used in a much wider sense, almost equivalent to the English "squire," and applied to any proprietor of lands or houses.

"LALITA-VISTARA."—One of the most celebrated words of Buddhistic literature, containing a narrative of the life and doctrine of the Buddha Sakyamuni, and instructions in religious law. An English translation has been published.

"LAKE SCHOOL."—A nickname given by the *Edinburgh Review* to Wordsworth, Coleridge, and Southey, poets who resided in the lake districts of Westmoreland and Cumberland.

LAMASOUL, *lam'-a-sool* (Celtic, *la maes abhal*, "day of apples").—An old English beverage, composed of ale and the pulp of roasted apples with sugar and spices, known also as "Lamb's wool."

LAMBEAUX, *lam-bo'*.—In Heraldry, a cross, the lower limb terminating in a label of three points. Some old writers say it symbolizes the Cross of Christ, with "the three streams from His hands, feet, and sides."

LAMTREQUIN, *lam'-tre-kin*.—In Heraldry, a term variously applied to the

mantling attached to the helmet, to a wreath, and to the point of a label.

LAMIA, *lam'-e-a* (Gr.).—In fabulous History, a monster said to inhabit the centre of Africa, with the face and upper part of the body like a woman, and the extremities like a serpent. The first lamia, according to classic mythology, was the daughter of Neptune, who, having become insane through the jealousy of Juno, caught and devoured all new-born children she came across. The lamiae, however, of the ancients, were sometimes represented as a species of monstrous animal, or again as a vampire. This latter character is seized upon and carried out by Goethe in his "Bride of Corinth," where a young man is represented as marrying a lamia, who sucks his life-blood at night. A tale, somewhat similar in construction, occurs also in Philostratus' "Life of Apollonius of Tyana."

LAMIAN WAR, *lam'-e-an*.—In the ancient history of Greece, is the name given to that war which sprang up after the death of Alexander, the dependent Greek cities regarding this as a favourable opportunity for regaining their independence.

LAMPOON, *lam-poon'* (Fr., *lampions*, a drunken song).—A personal satire in which exaggeration of peculiarities and licence of language are indulged in.

LANCASTER HERALD.—One of the six heralds of England, ranking second in seniority. The office is supposed to have been instituted by Edward III., who created his son, John of Gaunt, Duke of Lancaster. Henry IV. raised the herald to the dignity of a king-at-arms.

LANCE.—A weapon used in the days of chivalry for tilting. It consisted of an ashen pole with an iron point. The modern weapon used by the Lancers is much thinner and lighter.

LANCET-WINDOW, *lan'-set*.—A narrow window much used in the early pointed period of Gothic architecture. The arch-head is acutely pointed. These windows are sometimes grouped together, with good effect.

LANDSCAPE, *land'-scaip* (Du., *landschap*).—In general language, a portion of country which the eye can comprehend in a single view, including mountains, rivers, lakes, and whatever else the land may contain. The word landscape is also very commonly used to denote a picture representing the form of a district of country as far as the eye can reach. The art of painting landscapes may be said not to have originated till the 14th or 15th centuries. From that time, however, it claimed the attention and admiration of artists, who, by imparting ideal beauty to the scenes which they depicted, elevated the art to the high position in which it now stands. (See PAINTING.)

LANDSCAPE GARDENING. (See GARDENING.)

LANGREL, or **LANGRAGE SHOT** (*lang'-grel*).—A peculiar species of missile, formed of bolts, nails, and other pieces of iron tied together, and shaped like a cylinder, so as to suit the bore of the gun from which it is to be discharged. It used formerly to be employed at sea for the purpose of destroying the spars and rigging of hostile vessels, but in the present day its use has nearly, if not quite, discontinued.

LANGUAGE OF FLOWERS, *lang'-gwaij* (Fr. *langage*).—An emblematical mode of expressing and interchanging ideas by means of flowers. The origin of this practice was doubtless suggested by the natural characteristics of certain flowers. "Lovely as a rose," "Fair as the lily," and "Modest as the violet," are phrases that seem to come naturally into use. Acting upon this principle, several elegant little works have been drawn out, in which nearly every known flower is tabularly arranged, with the object which it is supposed to symbolize placed beside it. Amongst the best known are the carnation, signifying fascination; the dahlia, instability; the rose, love; the geranium, gentility; the forget-me-not, remembrance; the fuschia, elegance; and the ivy, friendship.

LANGUAGE, SCIENCE OF. (*See PHILOLOGY.*)

LANGUAGES, DEAD. (*See DEAD LANGUAGES.*)

LANTERN, *lan'-tern*.—In Architecture, the lantern signifies a small dome raised over the roof of a building to give light and serve as a sort of crowning to the edifice. In Gothic architecture, a *lantern tower* is in some cases placed over the intersection of the nave and transepts of a church for the purpose of giving light.

LANTERNS, FEAST OF.—A feast held in China on the 15th day of the first month of the year. It derives its name from the vast number of lanterns which are hung out of the houses and in the streets. The lanterns used are often of great value. They are richly ornamented with gilding, painting, jappanning, sculpture, &c. Some of them are of great size, reaching nearly thirty feet in diameter, and are so constructed as to resemble halls or chambers. When lighted up with torches, these lanterns have a beautiful effect at a distance. Besides the large lanterns, there are also a vast number of smaller ones, which usually consist of six faces or lights, each about four feet high and one and a half broad, framed in wood, finely gilt and adorned. Over these they stretch a fine transparent silk, painted with flowers, trees, and other objects; the colours are very vivid, and, when the lanterns are lighted up, the effect is lively and picturesque.

LARGESSE, *lar'-jes* (French *largesse*, from Latin *largior*, I give bountifully).—Money given in former times to heralds for proclaiming the style and title of the sovereign and nobility; also by knights at tournaments.

LARGO, *lar'-go* (Italian "*large*").—A term in music denoting very slow time, especially used in solemn compositions. *Larghetto* is the diminutive of the word, and means not quite so slow.

LATIN LANGUAGE.—The Latin language, the speech of the ancient Romans, derived its name from the country of Latium, the central region of Italy. Latium was surrounded, in the south by colonies of Greeks, by the Tyrrhenian Pelasgi on the plain of the Po, by the Ligurians at the foot of the Alps, by the Umbrians and the Ausonians on the Tiber, the Oscans at the foot of Vesuvius, and the Etruscans on the Arno. The territory of Latium, therefore, having Greeks on the one side and barbarians on the other, overrun in turn by both, and at last peopled by different tribes, gave rise

to a language partaking of various elements. Many of the Latin words are of Greek derivation, a number of which are probably simple transplantations, adopted after the language was formed; but there are many others that have been more or less changed; and probably not a few that were originally Greek have come to lose all traces of their origin. The terms of husbandry and domestic occupation are mostly Greek, while those of warfare, on the contrary, are evidently not Greek. Hence it is concluded that the indigenous Pelasgi were subdued by victorious invaders. This view is confirmed by the fact that the terms for the simplest ideas are Greek: as *sto*, I stand; *sedeo*, I sit; *maneo*, I remain; while the terms referring to government and laws do not appear to be Greek: as, *rex*, a king; *jus*, law; *civis*, a citizen. Words relating to religion are usually not Greek, and may have been furnished by the Etruscans. That the conquerors did not come by sea is indicated by the fact that most of the maritime terms are Greek. As the Romans became masters of Italy, the other languages of the country disappeared. During the period preceding the first Punic war, the Roman language was in no settled state. It was necessarily exposed to a mixture of various idioms, from the diversity of foreigners who composed the early population of Rome. It was not until the close of that period that any attention was paid to the regular settling of the principles and forms of the language, and not until a still later time that any approved author laboured upon the cultivation of style. Traces of the old forms of the language are found in fragments of the earliest poets, and also in the comedies of Plautus. The Latin language has only twenty-three letters, corresponding to those of the English, except that *w* is entirely wanting, that *i* was used to represent both *i* and *j*, and *u* to represent both *u* and *v*. Distinctive forms for these letters were not introduced until the Middle Ages. The letter *k* seldom occurs, and *y* and *z* exist only in a few Greek words, and came late into use. *X* is also a letter of late origin; and, at an early period, *i* was used instead of *y*, and *ss* instead of *z*. There is no article in the Latin language, a defect which frequently gives rise to ambiguity. The characters used in writing greatly resembled, in the earliest period of the language, those of the Greek. The Romans used only capital letters, and, on account of the inconvenience in rapid writing, they formed abbreviations, by using the initial letters, or some of the principal letters of a word. Until the time of the poet Livius Andronicus, who flourished about 240 B.C., there exist few monuments of the Latin language. The oldest of them is a hymn, which was chanted at their annual festival, by the *fratres arvales*, a college of Roman priests. It was dug up at Rome in 1778, and is believed to be as old as the time of Romulus. It contains but few words that remained in the language. The next specimens belong to the time of Numa, and are the Salian hymn, which was unintelligible to Horace, and the laws of Numa; after which come the laws of the Twelve Tables, about B.C. 450. After the Romans had conquered the south of Italy and Greece, Greek terms and phrases were grafted on the old Latin stock, and the language lost much of its original form. What, however, it lost in originality, it gained in refinement and polish; so that its golden age dates nearly from this transformation—from the death of Sylla

through the reign of Augustus. The progress of the Romans in the arts and sciences during this period has excited the admiration of posterity, and secured them a rank among the distinguished nations of antiquity second only to the Greeks. They had seen their inferiority in these respects to the Greeks, and had been brought to admire and copy their poetry, oratory, and works of art. Much, too, was owing to the comparative tranquillity which they enjoyed during this period, and the protection and encouragement which was afforded to them. The language of the upper classes (*lingua nobilis, classica*) was distinguished from that of the common people (*lingua plebeia, vulgaris*), the latter of which is only preserved to us in a few phrases in the comic poets. There was also a *lingua urbana*, distinct from the *lingua rustica*, as well as a *lingua provincialis*. After the death of Augustus, the language became more and more corrupt, by the introduction of foreign terms from almost every language with which the people came in contact. The degeneracy became more rapid after the time of the Plinys, as there was no writer capable of moderating it. The successive incursions of the Goths, Vandals, and Lombards flooded it with foreign words and forms. That the Latin language did not share the destruction of the Roman empire was due to Christianity, which had adopted it; and though it at first deteriorated it, it afterwards secured its perpetuity. It remained, in Europe, the ecclesiastical, political, and official language, long after it had ceased to be spoken, except in cloisters. At the revival of letters, Latin was the common language of the savants of Europe, and was written by many of them with great ease and purity. Bacon wrote the principal of his works in Latin, believing that it was destined to be the universal and common language of learned men. The Reformation was a great blow to the general use of the Latin language, by depriving it of its prestige and authority, and exalting the vernacular languages above it. Still, however, even in the present day, many learned works are produced in Latin, particularly in Germany and Holland.

LATIN LITERATURE.—The Romans being chiefly devoted to war, politics, and legislation, for five centuries were possessed of no literature worthy of the name. From the first it was an imitation of that of Greece, and hence its general characteristics are correctness and precision, with little of the buoyant vigour and various colouring of original genius. Even in its most cultivated period, the poets seem to have had little conception of originality, except as the importation of a new style from Greece. It was not till after the Romans had conquered Magna Græcia and Sicily, and had thus become intimately acquainted with Greek literature, that they began to turn their attention to that subject. Their first poet was Livius Andronicus, a Greek taken at the capture of Tarentum, and who produced Latin tragedies and comedies, translated from and modelled after the Greek. The poet Ennius (B.C. 239-169) was regarded by the Romans as the father of their poetry. He wrote tragedies, satirical and didactic poems, and the "Annales," an epic on Roman history, for which he was the first to use the Latin hexameter. Distinguished as tragic poets about this time were Pacuvius, the nephew of Ennius, and his contemporary Attius. Next follows the comic poet Plautus, whose plays, though rather of a

low and coarse nature, abound in genuine touches of wit and humour, and were much admired. Under Terence (195-159) Latin comedy rose to its highest, though not to Attic, excellence. His comedies are all translated or adapted from Greek sources, chiefly Menander, and are distinguished for the elegance and purity of their style. He sought to delineate the pathetic as well as the ridiculous features of daily life; and though inferior to Plautus in native vigour, he surpassed him in constructive talent and depth of feeling. Nearly contemporary with him were Novius and Pomponius, authors of popular farces; Cæcilius Statius and Afranius, who introduced Roman instead of Greek manners upon the stage. Lucilius (148-103), a patrician by birth, gave to literature the advantage of his rank as well as genius, and was regarded by the Romans as the father of satire, a style of poetry in which he eminently distinguished himself. The Romans, after this period, had no distinguished dramatic writers; their pieces were mostly translations or imitations of Greek works. The later tragic writers of the Augustan age, Asinius, Pollio, Varius with his Thyestes, and Ovid with his Medea, are praised, but they were never very popular. The ten tragedies which are ascribed to Seneca were never acted, and are too bombastic and rhetorical to please cultivated minds. The first rude annalists of Rome were Q. Fabius Pictor and L. Cincius Alimentus, who were succeeded by the elder Cato (234-149), author of the "Origines" of Rome, a work now lost. The last historian of importance in the pre-Augustan period of Roman literature was L. Cassius Hemina, who wrote five or six books of "Roman Annals," fragments of which are still extant. Pre-eminent among the numerous other authors of this period were L. Cælius, Antipater, Cn. Gellius, Babbus, Sempromius, Asellio, C. Junius, Piso Frugi, Scæurus, Rufus, Catulus, Sylla, Valerius Antias. Distinguished among the orators who flourished before the time of Cicero were Sulpicius, the two Gracchi—whose speeches were stated to have been learned and majestic—Catulus, Crassus, Hortensius, and Antonius. Jurisprudence, as well as oratory, was suited to the genius of the Roman people; and among those most distinguished for their legal acquirements were the elder Cato, the Scævolas, and Manilius. The Stoical philosophy had many partisans, the first famous disciples of which being Panætius and Rutilius Rufus. The golden age of Latin literature is usually reckoned from the death of Sylla to that of Augustus (B.C. 78—A.D. 14). It was then that the influence of Greek philosophy came most to be felt. A knowledge of Greek was an essential part of a liberal education, and it was usual for the young men of means to finish their education by a residence of some time in Greece. In this period was Virgil (B.C. 70-19), one of the greatest epic poets that ever lived, and whose great work the "Æneid" has ever been admired for its elegance and taste not less than for its genius. It represents the landing of Æneas, and the foundation of his dominion in Latium; and although the poet did not live to give it his finishing touches, and desired it to be destroyed, yet it will ever remain a noble monument of his great genius. More perfect of its kind is his "Georgics," a treatise of agriculture in the form of a didactic poem, and exhibiting his views and feelings respecting human life. His earlier Eclogues or pastorals manifest the same love for nature and a country life. Few writers have exerted so wide

an influence upon æsthetic culture as Virgil. His contemporary and life-long friend was Horace (B.C. 65-8). (See HORACE, POEMS OF.) Ovid (B.C. 43—A.D. 14) in imaginative power is scarcely surpassed by any other Latin poet. He was also possessed of a brilliant sportive wit, and great power of versification. Less generally and highly esteemed are Lucretius, the finest of didactic poets, whose "De Natura Rerum" served at once to illustrate the atomic theory of the world and the Epicurean system of mortals, and to polish and enrich the Latin language; Catullus (born 87 B.C.), who introduced lyric poetry into the literature of Rome, and whose elegies and epigrams are admired for their simplicity, beauty, and unaffected imagery; Tibullus, who gave to the elegy its highest degree of excellence; and his successor Propertius (born about B.C. 51), an amatory poet, who is also learned, awkward, and obscure. The place of the legitimate drama was now occupied by the mime or melodramatic farce, in which the characters of common life were represented with the help of gesticulation and with low jests, for the entertainment of the populace. It was invented by Mattius, and acquired its greatest celebrity from Laberius and Publius Syrus, the latter of whom interspersed it with moral sentiments, expressed with great felicity; but it never reached the standard of an elevated class of poetry. The greatest master of Latin prose of this or any other period was Cicero, who in fact, has given name to the purest Latin composition. He flourished B.C. 106-43, and distinguished himself as an orator so as to dispute the first place with Demosthenes. The orations of Cicero are remarkable for their copiousness and luxuriance of expression. Poetry, also, history, and the epistolary style, he touched only to adorn. His letters are admitted to be the most perfect specimens which the literature of Greece or Rome can produce. Next to him, as orators, were the accomplished Hortensius, the obscure Cælius Rufus, the cold, cautious, and accurate Lucinius Calvus, and especially Julius Cæsar (B.C. 100-44), whom his contemporaries believed to be capable of rivalling even Cicero in eloquence. Pollio, Corvinus, and Cassius Severus, were also distinguished in this walk. Cæsar was Cicero's rival, also, in improving and refining the language. His "Commentaries on the Gallican War" are but little inferior to Herodotus in charm of diction. The historian next to him, in respect of style, is Cornelius Nepos, whose "Lives" are models of style in biographical composition. Sallust (B.C. 86-34) approximated to his model Thucydides in richness and vigour of thought and terseness of expression, though he marred his clear conception by an affectation of antiquated forms. His accounts of the Catilinarian conspiracy and the Jugurthine war are carefully prepared and ambitious works, always profound, though often partisan in their judgment. Livy (B.C. 59—A.D. 17), pre-eminently the general historian of Rome, excels in pictorial effect, surpassing even the Greeks in the liveliness and richness of his colouring, and the animation and spirit of his delineations. The work, however, is more picturesque than accurate, and marked more by patriotism than candour. In what is termed the silver age of Latin literature, from the death of Augustus to the accession of Hadrian (A.D. 14-117), everything is changed. Liberty had disappeared, and talent was made subservient to flattery, or to bombast and an affectation of wit. Every subject was rendered comic; prose

and poetry were confounded, and new grotesque forms of expression were invented. The purity of the language was no longer maintained, and it became corrupted by barbarism. Seneca, who, with great talents, was ambitious of shining by the brilliancy of his wit, the structure of his antitheses, and the general terseness and point of his style, contributed not a little to the degeneracy of the period. His various prose writings abound in moral sentences and maxims, but reveal the pride of a Stoic in a style full of literary affectation. Eloquence was cultivated by Julius Florus, by Domitius, and by Julius Africanus. Plays were produced by Pomponius Secundus, Varginius and Martinus. The epic degenerated from poetry to history; the "Pharsalia" of Lucan, the greatest effort in this line, being rather declamatory than poetical. Valerius Flaccus author of the "Argonautics," a work neither original nor brilliant, introduced an affectation of learned display. To this period belong Silius Italicus, author of "Punica;" Statius, author of "Thebais;" and Manilius, author of "Astronomica." In satire this period is more distinguished. Persius and Juvenal are the chief masters of this art—the latter disputing the palm of superiority with Horace. Martial first gave to the epigram its present meaning, as a short poem, in which all the thoughts and expressions converge to a striking and unexpected conclusion. Paterculus ranks among the best authors of this period. His work on Roman history is elegant and elaborate, and is conceived in an impartial spirit, though it manifests an opposition to republicanism, and a tendency in favour of the empire. The greatest of Roman historians, however, is Tacitus, who, to great powers for observation, unites intellectual strength; and whose experience of men and affairs furnishes the most sombre colours and sagacious maxims. Not to be compared with him, are Suetonius, the arid biographer of the emperors; the florid panegyrist Florus; Valerius Maximus, a collector of anecdotes; and Quintus Curtius, the Roman historian of Alexander the Great. Quintilian (born A.D. 40), in his great work "Institutiones Oratorie," displays a highly-cultivated mind and a polished and graceful style. The elder Pliny displayed a great love for the study of nature, and drew attention to the physical sciences, which previous to his time had been entirely neglected. The letters of the younger Pliny are of much value for the light they throw upon the period in which they were written; but many of them are excessively studied and elegant. The period from the accession of Hadrian to the fall of the Western empire (A.D. 117-476), exhibits not only the decline of taste, but the corruption of the language. The intercourse of the Romans with barbarians became much more extended. Under the Antonines, especially, the language became overlaid with exotic words, phrases, and constructions. Literature was also cultivated at Byzantium, Alexandria, Milan, and the principal cities of Gaul, as well as at Rome. As the literature declined, and the language became corrupt, the number of grammarians increased; for classical Latin had become almost a dead language, to be learned only from the ancient models. Ausonius, a grammarian, rhetorician, and poet, wrote idyls and epigrams marked by learning and wit; Claudian wrote epical sketches; Aurelius Prudentius, the greatest of primitive Christian poets, wrote a great variety of hymns and lyrical and heroic pieces, portions of which are still

employed in the services of the Catholic church; St. Ambrose wrote Latin poems remarkable for their austere simplicity and sublimity. The decline of prose appears in the "Historia Augusta," a collection of imperial biographies from Hadrian to Diocletian. The summaries of Aurelius Victor, Eutropius, and Sextus Rufus, succeeded. Almost the last noteworthy Roman history was that of Ammianus Marcellinus, extending to A.D. 378. The grammarian Cornelius Fronto, and the rhetoricians Apuleius and Eutodius, are the best of their class. The "Golden Ass" of Apuleius is almost the only example in Latin literature of anything like a prose novel or romance. The church fathers, as Tertullian, Minucius Felix, St. Cyprian, Arnobius, Lactantius, St. Hilary, St. Ambrose, and St. Jerome, are generally more remarkable for theological vigour than literary grace. In the reign of Justinian was drawn up that admirable system of laws which bears the imperial name. (See JUSTINIAN'S CODE.) Aulus Gellius, Nonius Marcellus, Festus Donatus, Macrobius, Servius, Priscianus, Cæsariensis, and Isidore of Seville, continued to cherish its traditions by criticisms, analyses, and such like. Maternus wrote on mathematics, Frontinus and Vegetius on strategics, Pulladius on rural economy, Solinus Publius Victor and Vibius Sequester on geography and cosmography.

LATRINES, *lat'reens*.—Necessary conveniences for soldiers in camps and barracks. Great attention has recently been given to the construction of these places, in accordance with sanitary requirements.

LATTICED, OR **TREILLE**, *trile-lya'*.—A term in Heraldry applied to a shield covered with a decoration resembling the cross bars of lattice-work.

LAUGHTER, *laf'ter* (Ang.-Sax).—A well-known action, or emotion, peculiar to the human species. It is occasioned physically by a grateful titillation, rising suddenly and irresistibly, and manifests itself principally in the face, but extending also to the throat, thorax, and abdomen. It is frequently little more than the expression of hilarity, caused by a cheerful disposition and good physical health—a mind readily amused and vigorous in exhibiting its gratification. As to the mental cause of laughter, much difference of opinion exists among philosophers; but, in fact, it is not to be easily explained by any philosophy. It expresses pleasure, and as the causes of pleasure depend on the moral constitution, laughter may be caused by sympathy, a perception of oddity, or, if the nature be mean and cruel, by the sight of something supposed to be inferior or contemptible. A smile is rudimentary laughter, expressive of pleasure under greater mental control. Laughter is extremely contagious, and one genuine laugh will excite other laughs by the mere force of imitation.

LAURA, *law'-ra*.—A name given to a collection of little cells, at some distance from each other, in which the hermits of ancient times lived together in a wilderness. These hermits did not live in community, and thus differed from monks in a monastery; but each provided for himself in his distinct cell. The most celebrated lauras mentioned in history were in Palestine.

LAUREATE, **POET**, *law'-re-at*, is an officer of the royal household, in the lord cham-

berlain's department. The appellation is derived from the Latin *laurus*, a laurel, from the ancient custom of crowning the successful poets in the musical contests with a wreath of laurel. The earliest mention of a poet laureate, under that title, occurs in the reign of Edward IV., when John Kay received the appointment, though this is believed to be the same office which was held as early as the reign of Henry III., by Henry de Avranches, who is styled "king's versifier," and was paid a hundred shillings a year by way of stipend. Poet laureate, however, was also an academical title in England, conferred by the universities for proficiency in grammar, which included rhetoric and versification. The poet Skelton was thus laureated, and was among the last that received that honour. He was likewise laureate to Henry VIII. Ben Jonson was court poet to James I., but does not seem to have had the title of laureate formally granted him. The first patent of this office was granted in the reign of Charles I. (1630), and assigns to the laureate a salary of £100 a year, and a tierce of Canary wine out of the royal cellars. Dryden was appointed laureate to Charles II., and afterwards to James II. The successors of Dryden have been Nahum Tate, Nicholas Rowe, Laurence Eusden, Colley Cibber, William Whitehead, Thomas Warton, Henry James Pye, Robert Southey (who consented to a commutation of his wine for £27), William Wordsworth (with a salary of £300), and Alfred Tennyson.

LAZZARONI, *la'-zar-ro'-ne*.—The name given to the lowest class of inhabitants in Naples, from the hospital of St. Lazarus, which served as a refuge for the destitute of that city. Now that Naples is a portion of the kingdom of Italy, the lazzaroni are less influential than when they were convenient to the despotic kings of Naples. They constituted a particular class of themselves, living mostly, day and night, the whole year through, on the streets, and earning a precarious livelihood as messengers, porters, day-labourers, itinerant vendors of food, &c. They elected annually one of their own body as chief, who had the title of *Capo Lazzaro*, and was recognized by the government, for the reason that he exercised control over this great mass of people, numbering from 50,000 to 60,000.

LEADER, *lead'-er* (Ang.-Sax).—In Concerted Music, is that performer who plays the principal violin, and receives the time and style of the various movements from the conductor, and communicates them to the rest of the band.

In Journalism, a leader, or leading article, is an original article expressing the editorial opinions on some political or other topic of the day. It is generally printed in larger type than the other part of the paper, and occupies the most prominent position.

LEADING QUESTION, *lead'-ing'*.—An expression in Law for a question put to a witness in such a manner as to suggest the reply. Such questions are not only permitted in examination-in-chief, but in cross-examination, the object being to make the witness contradict himself, and so render his evidence untrustworthy.

LEAP-YEAR.—In the Calendar, every fourth year, which contains 366 days, or one more than other years. (See BISSEXTILE, CALENDAR, and YEAR.) The added or intercalary day, was, according to Mr. Samuel Sharpe (in a letter to the *Athenæum* of July 11, 1880), introduced 357 B.C. by Ichonuphys, an Egyptian astronomer, and instructor of Endoxus, the re-

former of the Greek calendar. If the date of a year is divided by four without a remainder, that is a leap-year.

LEASH, *leesh* (Fr., *laisse*, from Lat., *laqueus*, a thong of leather).—A term employed by sportsmen with regard to game, &c., in order to signify three, or one brace and a half; as a leash of partridges. It also signifies a line to hold dogs by, especially hounds in coursing; and, in falconry, the thong by which a hawk was held.

LECTURE, *lek'-tshur* (Lat., *lego*, I read).—Strictly and etymologically, this term signifies a discourse read; but, commonly, it is used in a more general sense, to denote any formal or methodical discourse intended for instruction. The communicating of instruction by means of public lectures has been in use from the earliest times, and, when properly conducted, it has advantages over every other mode of teaching. For that purpose, however, it is necessary that the matter be drawn up and arranged in an easy, natural, and consecutive manner, and that it be delivered in an attractive mode. In the universities, and medical schools instruction is communicated to a considerable extent by means of lectures. In such cases, each lecture should be followed up, next day, by a searching examination of the students on the subjects treated of, and explanations given of such difficulties as may have occurred to them. Since the establishment of literary and scientific institutions and mechanics' institutes, lectures have been one of the most popular means of conveying instruction and affording amusement. The term, indeed, is made to include many musical and semi-dramatic performances to which the word "entertainment" would be more appropriate. The philosophical and scientific lectures at the Royal Institution by Faraday, Tyndall, and other eminent men of science have been of the highest value; and authors of high repute, as Hazlitt, Coleridge, and Carlyle, have delivered lectures on literary subjects. Lecturing has been for many years past a regular profession, and political, social, literary and musical lecturers make regular tours in Great Britain and the United States.

LEECH, *leetsh* (Saxon, *laccan*).—In popular language, the name leech was given by the Anglo-Saxons and their successors to those who practised surgery or medicine; and in more recent times, horse-doctors have been known as leeches.

LEGS.—In Heraldry, the legs are not unfrequently borne as charges. The arms of the Isle of Man, three legs in armour, conjoined at the thighs, are a well-known instance.

LEGATO, *lai-ga'-to*.—A term in Music meaning that some notes are played as if flowing into the following note.

LEGEND, *lej'-end* or *le'-jend* (Lat., *legendum*, something to be read).—As generally used, a fictitious or doubtful narrative; as the exploits of the heroes of the Middle Ages. Originally, however, it was applied to a book containing lessons to be read in the divine service of the Roman Catholic church. Subsequently the word came to be applied generally to books containing lives of the saints, and which abounded in incredible and ridiculous stories. These were recommended to the laity to be read, as affording evidences of the truth of the Catholic religion.

One of the best known of these is the Golden Legend, compiled by James D. Varase, about 1290. (See GOLDEN LEGEND.)

LEGER LINES, *lej'-er*.—In Music, short lines above or below the stave, to permit of higher or lower notes being expressed.

LEGERDEMAIN, *lej'-er-de-main'* (French, light of hand).—Sleight-of-hand, or jugglery; those deceptive tricks which are owing, either entirely or mainly, to dexterity and address.

LEONINE VERSES, *le'-o-neen*, is a species of poetry much in fashion during the Middle Ages, and consisting of the introduction of rhyme into Latin verse. The term is said to be derived from a poet Leo, or a monk Leoninus. As an instance, is the famous song of Walter de Mapes:—

"Mihi est propositum in taberna mori;
Vinum sit appositum morientis ori."

Sometimes the rhymes fall in the same line, the end rhyming to the middle; as—

"Daemon languebat, monachus tunc esse volebat;
Ast ubi convaleuit, mansit ut ante fuit."

LETTERS, *let'-terz* (Ang.-Nor.), are those marks, signs, or characters, painted, engraved, or printed, used as the representatives of sound, or of an articulation of the human organs of speech, thus representing ideas by phonetic signs. Letters form the elements of written language, just as simple sounds constitute the elements of spoken language, or speech. Sounds communicate ideas through the agency of the ear; letters forming the visible representatives of sounds communicate thoughts by means of the eye. (See ALPHABET, PHILOLOGY.) The term is also used as synonymous with literature, and applied to epistolary communication.

LETTER-WRITING is a branch of literature which, unfortunately, is but little studied. It is to be regretted that more pains are not taken to excel in an art which is so commonly and so universally practised. There are comparatively few persons that can write a good letter; and yet it is an attainment that may be reached by comparatively little pains and study. A good letter requires to be easy, natural, and well expressed, suited to the circumstances and to the character of the person to whom it is addressed. The French, from being more natural, and having the habit of expressing their feelings more vividly, greatly excel us in this line; and published collections of letters form a considerable branch of their literature. Among the more celebrated published letters of this country are those of Sir William Temple, Addison, Pope, Swift, Bolingbroke, Lady Montague, Chesterfield, Gray, and Cowper.

LEVÉE, *lev'-e* (Fr., *lever*, to rise).—Properly denotes the time of rising, and is commonly applied to the visits which princes and other distinguished personages receive in the morning. It is specially applied in this country to the stated public occasions on which the sovereign receives visits from persons of rank or fortune. A levée differs from a drawing-room only in that ladies are admitted to the latter but not to the former.

LEVÉE EN MASSE (Fr., universal rising).—A military term applied to the rising of a whole people in arms, including all those capable of bearing them that are not actually engaged in the regular service. The volunteer movement in

England would produce a *levée en masse* in case any invasion should threaten us.

LEVERIAN MUSEUM, *le-ve'-re-an*, was founded by Sir Ashton Lever, and was exhibited to the public at Leicester House, London. It was made the subject of a guinea lottery in 1785, won by Mr. Parkinson, who sold it by auction in lots, during May, June, and July, 1806.

LEXICON, *leks'-i-kon* (Gr., *lexis*, a word), is a vocabulary or dictionary of words, more particularly applied to dictionaries in the Greek or Hebrew language. (See **DICTIONARY**.)

LIANAS is a term first adopted by the French, and subsequently in other languages, to describe the woody, climbing plants abounding in tropical forestal regions.

LIBER ALBUS, *li'-ber al'-bus* (Lat., white book).—An old record of the civic laws and customs of the City of London, preserved by the Corporation. An English translation was published a few years since. It is remarkably interesting, as illustrating London civic and social life in old times.

LIBERTINE, *li'-ber-tin*, is a term derived from the Latin *libertinus*, which signified a freedman, a slave that had received his liberty. Libertine, in its modern sense, denotes one freed from restraint, more particularly one who leads a licentious life.

LIBRARIES, PUBLIC.—The importance of establishing public libraries was first brought under the notice of Parliament in 1848, when Mr. W. Ewart, M.P. for the Dumfries burghs, moved for the appointment of a select committee of the House to report upon the subject. Mr. Ewart subsequently succeeded in passing the Acts of 1854 and 1855. The latter Act (18 & 19 Vict. c. 70) is applicable—(1) to all municipal boroughs having a population, by the last census that shall have been taken, of more than 5,000 persons; (2) to all districts of like population having an improvement-board; (3) to all parishes of like population; and (4) to any two or more neighbouring parishes that may unite for that purpose, and which have an aggregate population of more than 5,000. In order to its adoption, a public meeting of the ratepayers must have been duly convened, and the proposition for its adoption must have been voted by at least two-thirds of the persons then present. The town council, or improvement-board, or parish vestry, as the case may be, then becomes empowered to levy a library-rate, not exceeding one penny in the pound, on the rateable value of the assessable property in the borough, district, or parish. The library rate may be applied wholly to the establishment of a library, or partly to a library and partly to a museum. The management and control of the libraries and museums thus established is, in a city or borough, vested in the council; in a district, in the improvement-board; and in a parish, in commissioners to be named by the vestry. The commissioners must be ratepayers, and not less than three or more than nine. This managing body has power to provide books, newspapers, maps, specimens, of art and science, and all other needful matters; and to employ the requisite officers and servants: admission to all the libraries established under the Act to be free of all charge. Other Acts make similar provisions for Scotland and Ireland. This Act was amended in 1866, under which any ten

ratepayers of any place may, by requisition to the local governing body, cause a public meeting to be held, and a simple majority of the meeting suffices to authorize the local governing body to establish a free library.

Circulating Libraries are extensive collections, chiefly of modern books in current demand, for the use of subscribers, who, for an annual payment in proportion to the number of books required at one time, have the use of the volumes for a stated period.

LIBRARY, *li'-bra-ry* (Lat., *liber*, a book), denotes both a collection of books and the apartment or edifice in which they are contained. The most ancient library on record was founded by Osymandyas, king of Egypt, a contemporary of David, king of Israel. At a very early date the Jews attached collections of books to most of their synagogues; and we are told that Nehemiah founded a public library at Jerusalem. In the recent discoveries in Assyria, a vast collection of clay tablets, bearing cuneiform inscriptions, was found in the palace at Nineveh, forming what has been termed a "library in clay." Pisistratus of Athens is said to have established the first public library in Greece, and to have collected, at great trouble and expense, the works of Homer. Aristotle is the first person on record who was possessed of a private library. After the death of Alexander, the love of science and literature generally passed from Athens and Greece to Alexandria, where was formed the most magnificent library of ancient times: it is said to have contained no fewer than 700,000 volumes. (See **ALEXANDRIAN LIBRARY**.) Next to the Alexandrian library, that of Pergamus was the most renowned, and is said to have contained 200,000 volumes. The first library established at Rome was probably that founded by Paulus Æmilius, B.C. 167. Several of the great libraries of Europe date their first beginnings prior to 1465, when the art of printing had been established, but without having, as yet, materially affected the labours of the copyists; as the imperial libraries of Paris and Vienna, the Laurentian library at Florence, and the library of the Vatican. Town libraries had also begun to be formed in various parts, particularly of Germany and France. In this respect England stands in striking contrast to other countries, being centuries behind them. In 1570, Sir Humphrey Gilbert in vain pressed upon the attention of Queen Elizabeth the importance of establishing a public library, after the pattern set us by "the more civilized nations; as Germany, Italy, and France." In fact, it was not until the reign of James I. that Great Britain could boast of even a royal library worthy of the name. The Bodleian library was founded in 1597, and down to 1753, when the British Museum library was formed, it continued to be the only one of national importance. The following is a table of the principal libraries, with the number of volumes, &c., in each, according to the latest reports:—

Place.	Name.	When Founded.	Printed Volumes.	MSS.
London.....	British Museum	1753	1,500,000	100,000
"	Guildhall	1824	50,000	..
"	Sion College	1631	55,000	..
Oxford.....	Bodleian	1597	400,000	30,000
Cambridge...	University	1475	197,000	3,163
Edinburgh...	Advocates	1680	230,000	2,000
"	University	1580	100,000	400
Glasgow.....	"	16th c.	100,000	..
Dublin.....	Trinity College	1602	170,000	1,600
Paris.....	National	1577	1,000,000	150,000
"	Arsenal	1789	202,000	6,000

Place.	Name.	When Founded.	Printed Volumes.	MSS.
Paris	St. Geneviève	1624	180,000	3,500
"	Mazarin	1660	140,000	3,000
Strasbourg	Town	1531	180,000	1,590
Bordeaux	Town	1738	123,000	320
Munich	Royal	1550	800,000	18,600
Berlin	Royal	1661	700,000	15,000
Vienna	Imperial	1440	400,000	20,000
"	University	1777	120,000	"
Munich	Royal	"	800,000	22,000
Dresden	Royal	1555	400,000	2,800
Göttingen	University	1736	500,000	5,000
Wolfenbüttel	Ducal	1604	220,000	4,500
Tübingen	University	"	200,000	20,000
Stuttgart	Royal	1765	200,000	18,000
Leipzig	University	1543	160,000	2,500
Hamburg	Town	1529	150,000	5,000
Gotha	Ducal	1640	180,000	5,000
Darmstadt	Grand-Ducal	1760	300,000	4,000
Heidelberg	University	1703	200,000	3,000
Weimar	Ducal	"	140,000	"
Prague	University	1350	130,000	4,000
Breslau	University	1811	350,000	2,000
Augsburg	Town	1537	118,000	394
Hanover	Royal	1690	120,000	"
Erlangen	University	1743	100,000	500
Brussels	Town	1350	200,000	18,000
"	Royal	1837	115,000	15,000
The Hague	Royal	1735	110,000	2,000
Rome	Vatican	1450	50,000	24,000
Bologna	University	1690	150,000	11,000
Naples	Royal	1780	200,000	4,760
Turin	University	1436	115,000	3,000
Venice	St. Mark's	1486	120,000	10,000
Florence	Magliabecchian	1714	175,000	12,000
"	Laurentian	1444	120,000	6,000
Milan	Brera	1763	130,000	1,000
"	Ambrosian	"	140,000	15,000
Madrid	National	1712	230,000	10,000
St. Petersburg	Imperial	1747	800,000	20,000
"	Academy	1726	110,000	"
Copenhagen	Royal	1550	550,000	18,000
"	University	1730	200,000	4,000
Upsal	University	1621	200,000	7,000
Christiania	University	1811	200,000	600
New York	Astor	1839	150,000	"
Boston	Athenæum	1804	100,000	"
"	Public	1852	200,000	"
Cambridge, Mass.	Harvard College	1764	260,000	"
Philadelphia	Library Co., &c.	1731	70,000	"
Washington	Congress	1851	250,000	"
D.C.	"	"	"	"
Albany, N.Y.	State	1818	53,500	"
Harvard	University	1632	480,000	"
Tokio, Japan	Free	1873	80,000	"

The last named is remarkable for its rapid growth, as indicative of the susceptibility of the Japanese to European influences. In addition to the library named, there is another containing 143,000 volumes, including many ancient books and manuscripts, the admission fee being about one halfpenny, and most of the leading towns throughout Japan are now provided with free libraries. In the continental libraries, works are regarded as separate volumes which, in the British Museum library, would be counted only as one. Thus, three-volume novels, at the Museum, are usually bound into one, and reckoned only as one volume, whereas, in the other libraries, they would be counted as three; and the same with many others. Hence, relatively, the number of volumes in the Museum library is much greater than appears on this list.

LIBRARY ASSOCIATION was founded at a conference of librarians held at the London Institution, October 2, 1877. It has a meeting annually, the place of meeting varying from year to year.

LIBRETTO, *le-bret'-to* (Ital., a small book).—

A term applied to the words constituting the text of an opera.

LICENTIATE, *li-sen'-she-ait* (Lat., *licentia*), means one who has a licence to exercise a profession. In some foreign universities it means a degree; in England, the degree of licentiate of medicine is granted by the university of Cambridge. In the Presbyterian churches, a licentiate is one qualified and authorized to preach.

LIFTING, *lift'-ing* (Swed., *lyfta*, to lift), on Easter holidays, is a custom which formerly prevailed throughout the country, and which still lingers in some of the less populated parts. On Easter Monday the women form parties of six or eight, and surround such of the opposite sex as they may meet, and with or without their consent, lift them thrice above their heads, with loud shouts at each elevation. On Easter Tuesday the men in similar parties do the same to the women. A small sum or fine is always extorted from the persons so lifted. This custom, it is said, is designed to commemorate our Saviour's resurrection.

"**LILLI-BULLERO**" was part of the refrain of a popular song, in ridicule of the Irish Papists in 1688. The words are attributed to Lord Wharton, the music to Henry Purcell.

LIMBER, *lim'-ber*.—The name of the fore part of a so-called gun carriage, the cannon being mounted on the hind wheels, and the limber having upon it the boxes for ammunition, &c., which serve also as a seat for the driver. When on the march, the mouth of the cannon points to the rear, but when prepared for action it is pointed to the front and unlimbered, so that the limber may be out of the way of the gunners.

LIMMA, *lim'-ma*.—In Music, an interval of such a minute character as to be omitted from ordinary practice, but necessary to study and mastery upon exact principles. The great limma is the interval between a large whole tone and a small semi-tone in the proportion of 27 to 25; the small limma is the interval between a great whole tone and a great semi-tone in the proportion of 135 to 138; the Pythagorean limma is the interval between two whole tones (the great third of antiquity) and the perfect fourth in the proportion of 256 to 243.

LINE, *line* (from Lat., *linea*, a line).—In Genealogy, is a series or succession of relations from a common progenitor.—In Nautical language, a *ship of the line* is a vessel with three tiers of guns. (See NAVY).—In Military language, *troops of the line* are regular foot regiments.—In Geography, the *line* is an imaginary line drawn round the earth to represent the equator; and "crossing the line" is passing this fictitious boundary; on which occasion burlesque ceremonies used to be performed, which are now, however, generally abandoned.

LINE OF BATTLE.—A general name given to the arrangement or order in which a fleet of ships of war are disposed to engage an enemy. This disposition, which is best calculated for the operations of naval warfare, is formed by drawing up the ships in a long file, or right line, prolonged from the keel of the hindmost to that of the foremost, and passing longitudinally through the keels of all the others, from the van to the rear; so that they are, in nautical parlance, in the *wake* of each other. In the line of

battle, all the ships of which it is composed sail one point free when upon a wind on the starboard or port tack, and about one hundred fathoms distant from one another. A fleet is more particularly drawn up in line when in the presence of the enemy; and the ships are so arranged as to be able to fire upon the enemy without incommoding the ships of their own squadron. All the ships composing the line have not less than two decks; hence they are called *line-of-battle* ships.

LINE, *linez*.—In Music, those members of the stave between and upon which the notes are placed. The stave itself consists of five lines only, but other and smaller lines, called *ledger-lines*, are placed above and beneath, for the reception of all notes that are too high or too low to come within the stave. The invention of lines is attributed to Guido. At their first introduction the spaces between them were not used.

LINE OF INTRENCHMENT.—When an army is encamped for a brief space of time in the open field, or engaged in offensive operations against a beleaguered town, it is not considered necessary to construct a continuous series of works, which are termed lines of intrenchment, for its defence; but a few redoubts and breastworks, thrown up here and there, are deemed sufficient for the protection of any weak part of the position that may be easily approached and assailed by the enemy's forces. Circumstances, however, may occur, under which an army is compelled to remain entirely on the defensive, when continuous lines of intrenchment, or a series of redoubts skilfully disposed, must, of necessity, be thrown up for its protection. All fieldworks of this kind consist of a parapet of earth about seven or eight feet high, with a banquette behind it and a ditch in front of it; the earth which is taken out of the ditch being used in making the parapet.

LINEAL, *lin'-e-al*. (See CONSANGUINITY, DESCENT, KIN OR KINDRED.)

LINEAR PERSPECTIVE, *lin'-e-ar*. (See PERSPECTIVE.)

LINSTOCK, *lin'-stok*.—In Gunnery, is a staff for holding the lighted match for application to the touch-hole of a cannon.

"LION" SERMON.—The annual discourse to which this singular title is given is delivered in the Church of St. Katherine Cree, Leadenhall Street, London. It was originated under somewhat remarkable circumstances in the reign of James I. or Charles I. At this time Sir John Gayer, a wealthy merchant of London, and a great benefactor to the above-mentioned parish in which he resided, undertook for commercial purposes a tour on the continent of Asia, then rather a formidable project. He met with many adventures, the record of which was probably destroyed by the Great Fire of London, but one is commemorated to this day. Whilst separated from his companions in the desert of Arabia, Sir John was approached by a furious lion. When death seemed inevitable, he fell on his knees and prayed for succour, whereupon the huge beast, instead of attacking him, stopped short, prowled round him, and finally trotted off, without in the smallest degree injuring the praying knight. Upon his return to England Sir John bequeathed £200 to his parish church, for the relief of the

poor, on condition that a sermon should be preached yearly to commemorate the marvellous deliverance vouchsafed him by God.

LION AND UNICORN.—These heraldic supporters of the royal arms of England were first adopted on the accession of James I. in 1603. The lion was previously the supporter of the English, and the unicorn the supporter of the Scottish shield.

LIPOGRAMMATIC, *lip-o-gram-mat'-ik* (Gr., *leipo*, I omit; and *gramma*, a letter).—In Literature, is a term applied to certain compositions in which particular letters are invariably left out. Thus, Tryphiodorus is reported by Hesychius to have written an Odyssey in which there was no *a* in the first book, no *b* in the second, and so on. Lope de Vega wrote a novel without using the letters *l* and *a*; and G. W. Burmann wrote a poem in German without the letter *r*. The production of such works is laborious trifling; it serves no purpose, and the selection of particular words must seriously interfere with the natural course of the poem or narrative.

LIRA, *li'-ra*.—A silver coin of Italy, of the value of 100 centesimi. The modern lira corresponds in nominal value to the French franc, and is, like it, divided into 100 centimes. The lira of old varied in value according to the province and age in which it originated.

LIST, *list* (Ang.-Sax.), is used to signify the inclosed field or piece of ground wherein the ancient knights held the jousts and tournaments. It was so called from being surrounded with pales, barriers, or stakes, as with a list or border, like a piece of cloth. Some of these were double, one for each cavalier, separating them from each other, so that they could not approach within a spear's length. Hence, to enter the lists is used figuratively to denote engaging in a contest.

LITERARY FUND.—The Royal Literary Fund has for its object to succour authors in reduced circumstances through misfortune. It was founded in 1790 by David Williams, a friend of Benjamin Franklin, and incorporated in 1818.

LITERARY PROPERTY. (See COPYRIGHT.)

LITERATI, *lit-e-rai'-te* (Lat., *litera*, a letter), denotes, in general, learned men, or men of letters. In China, it is applied to all such as are able to read and write their own language; and is also the name of a particular sect, composed principally of the most learned men of that country, and called the *jukias*, or learned. The literati alone are capable of being made mandarins.

LITERATURE, *lit'-e-ra-ture* (Lat., *litera*, a letter).—In its widest signification, denotes the whole of what has been written. This is the meaning which the word usually bears on the continent; but with us it is generally restricted to what may be termed elegant literature, or *belles-lettres*, to the exclusion of works of positive science and mere erudition. Taken in its widest signification, it is usual to divide it into several distinct parts, according to periods or countries, or its different kinds. Thus, we have the literature of the ancient world, of the middle ages, and of modern times; the literature of Greece, Rome, &c.; prose literature, poetical literature, and so on. The main object of literary history is to show the

general progress and phases of intellectual development, and of æsthetic and moral culture. Political history deals chiefly with events, literary history with thought; each merges into the other, and they are necessarily connected in any complete narrative. If we contemplate the tree of collective knowledge and art, with its branches ramifying through all ages and tongues, through all gradations of mental culture, we find that it may be traced more particularly to ten nations. Our eye is first captivated by the flowery fields of Greek literature and art, the conspicuous beginning of all mental culture. On examining it more closely, we are carried back into Oriental regions, where the stupendous monuments of Hindoostan, the gigantic ruins of which stand forth as the relics of a former world, meet our wondering gaze on the firmest rock of this primordial world. Moses laid the foundations of the temple of Hebrew prophecy, the glory of which irradiated the old, poetic, and sacred tradition of Persia with a kindred refulgence as far as it can be discerned amid the impure admixtures of Arab creed. Both elements of mental culture, Greek and Oriental, after passing through the earnest Roman world, flow into Christian ages, in which a new, living stem of noble intellect, grafted on the old northern stock, has shot forth with great vigour among the four most cultivated nations of the West—the Italians, French, Spaniards, and English—in poetry and criticism, in arts of every kind, and in philosophy, both true and false. The German mind forms the connecting bond of this intellectual development of the four great Romanic nations; inasmuch as it has been the cause and mainstay of intellectual development throughout Europe. The love of literature is one of the most marked characteristics of an advanced civilization, and it exercises an important influence in practical life, on the destiny of nations and on the progress of ages. As civilization becomes diffused, the literature of a country comes more and more into sympathy with ordinary life. Nor does literature lose anything by being thus brought into contact with common life; for those works are ever the best and most useful which speak to the feelings and sympathies of the great mass of the people. Too frequently, and too long, have literature and life been completely alienated from each other, like two distinct worlds, having no interests, no sympathies in common, to the great injury of both. Literature has been despised in the eyes of the world, and the world has been too much overlooked by men of letters. "The isolation of the learned, as a distinctive body," says Fred. Schlegel, "from the great mass of the people, is the most formidable obstacle in the way of national civilization. The various innate inclinations, nay, the very conditions and circumstances of men, should, to a certain extent, co-operate, if the productions of the mind are to be perfected or appreciated."

LITOTES, *li-to'-teez* (Gr.).—In Rhetoric, is a figure of speech, wherein, by denying the contrary of what we intend, more is signified than we would seem to express. Thus, "a man of no mean ability," meaning "of considerable ability."

LIVERY, *liv'-e-re* (Fr., *livrée*), is applied to the distinctive dress given by masters to their male servants. It is said to be derived from the custom of the early kings of France of presenting to the servants throughout the palace particular sets of clothes at the royal expense. In the days

of chivalry, livery was not any mark of degradation; for the duke's son wore a prince's livery; the earl's son a duke's; and so on. Cavaliers distinguished themselves at tournaments by wearing the livery or badges of their mistresses. For a considerable period, the "retainers" of noblemen wore their masters' livery. Their service lasted for one year; but so formidable did this body become, that no nobleman was at length allowed to retain such followers without licence. Licences and retainers were alike abolished in the reign of Charles II., and since that period livery has only been worn by the lower class of male household servants. The coachman is the recognized chief of the liveried corps. A servant in livery is addressed by his Christian name; but when promoted from the servants' hall to the steward's room company, he is distinguished by his surname. The word livery is also applied to the ninety-one companies of the city of London, the members of which wore habiliments in form and colour resembling those of the lord-mayor and sheriffs.

LIVRE, *leev'(r)* (Fr., from Lat., *libra*, pound).—An old French coin, and equal in value to 98 centimes; and consequently slightly less in value than a franc, 81 livres being equivalent to 80 francs.

LOCHABER AXE, *lok-ah'-ber*.—An ancient weapon of the Scotch Highlands; it had a broad blade with a curved handle, as carried until modern times by the Old Guard of Edinburgh.

LOCO, *lo'-ko*.—In Music, denotes that the notes must be precisely adhered to as written.

LODGE, *loj* (Fr., *logis*).—A term applied in Architecture to a small house situated in a park or domain, subordinate to the mansion; also the cottage situated at the gate of the avenue which leads to the mansion. In this last sense it is nearly synonymous with the term "gate-house."

LODGED.—In Heraldry, indicates that a beast of the chase is lying down with its head erect, a beast of prey so lying being called couchant.

LOGOGRAM is an extension of the principle of Anagrams, involving the composition of verses and the introduction of synonymous expressions as substitutes for some of the words played upon. (See ANAGRAMS).

LOGOGRAPHY, *log-og'-raf-e* (Gr., *logos*, a word; *grapho*, I write).—A method of reporting speeches without having recourse to shorthand. It was put in practice during the French Revolution. About twelve reporters arranged themselves round a table, each of them having a long slip of numbered paper before him. The first three or four words were taken down by the writer of No. 1; and as soon as they were spoken, he gave notice to his neighbour by touching his elbow, or some other sign. No. 2 then passed the sign to No. 3; and so on till the first line of each slip was completed, when No. 1 commenced the second line. When filled up, all the slips were placed parallel to each other, and formed a single page. Logography was not found to answer in practice; it required too great attention and quickness for correctness. It was first employed in the National Assembly, in October, 1790, and continued till the 10th August, 1792, when Louis XVI., with his family, took refuge from the insurrection in the Assembly, and occupied the box of the logographie:

from that time it was discontinued. The term logography also denotes a mode of printing, in which whole words are used instead of letters. It was used for a short time in the *Times* printing office, but soon abandoned.

LOGOGRAPHY, *log'-o-grif* (Gr., *logos*, a word; *graphos*, an enigma).—A word used by Ben Jonson, and almost obsolete, signifying a sort of riddle to exercise the mind.

LOGOGRAPHERS, *lo-gog'-ra-fers*.—The historians of Greece in ancient times. They put into prose the matter derived from the epic poets.

LOMBARD, *lom'-bard*, was a term anciently applied in England to a banker or money-lender, from the Lombards, a company of Italian merchants, chiefly from Lombardy, who were settled in London as early as the middle of the 13th century, and had their residence in a street which still bears their name. These were the great bankers and money-lenders of the day. Stow, in his "Survey of London," says, "Then have ye Lombard Street, so called of the Longobards, and other merchants, strangers of divers nations, assembling there twice a day."

LOMBARDIC ARCHITECTURE. (See ROMANESQUE ARCHITECTURE.)

LONG, *long* (Lat., *longus*).—The name applied in ancient music to that note which was equal to two breves, or four semi-breves, or eight minims, or sixteen crotchets; and so on.

LOOF is the after-part of the bow of a ship. Guns placed there are known as loof-pieces.

LORD OF MISRULE was the title borne by the master of revels at Christmas in any nobleman's or other great house. "First in the feast of Christmas," says Stow, "there was in the king's house, wheresoever, a lord of misrule or master of merry sports, and the like had ye in the house of every nobleman of honour or good worship, were he spiritual or temporal." "These lords, beginning their rule at Allhallows eve, continued the same till the morrow after the feast of the Purification, commonly called Candlemas-day, in which space there were fine and subtle disguisings, masks, and mummeries, with playing at cards for counters, nayles, and points, in every house, more for pastime than for gain." According to an original draft of the statutes of Trinity College, Cambridge, founded in 1546, one of the masters of arts is to be placed over the juniors every Christmas for the regulation of their games and diversions at that season of festivity. Under his direction and authority, Latin comedies and tragedies were to be exhibited in the hall, as also six *spectacula*, or as many dialogues. His sovereignty was to last during twelve days at Christmas, and he was to exercise the same power on Candlemas-day. A Christmas prince, or lord of misrule, was also a common temporary magistrate in the colleges at Oxford. At the inns of court, too, a Christmas prince, or revel-master, was constantly appointed. The lords of misrule in colleges were preached against at Cambridge in the reign of James I. as inconsistent with a place of religious education, and as a relic of the Pagan ritual. They disappear after 1640. In Scotland the Abbot of Unreason, as he was called, was suppressed by legislative enactment as early as 1555.

LOTUS-EATERS.—Homer, in the 9th

book of the *Odyssey*, describes the Lotophagi, or lotus-eaters, as a people on the north coast of Africa, who were visited by Ulysses in his wanderings, and who endeavoured to detain his companions by inducing them to eat the lotus, which would make them wish never to depart or revisit their native country. The idea has been exquisitely worked out by Tennyson, in his poem, "The Lotos-eaters." The Arabs speak of the lotus as "the fruit of destiny," which is to be eaten in Paradise.

LOW GERMAN (Ger., *Plattdeutsch*, or *Niederdeutsch*) is that softer German dialect which was formerly spoken over a great part of Germany, and which is even now the language of the common people in most parts of North or Lower Germany. It has also maintained itself in some legal forms; thus the Hamburg oath of citizenship is in Low German. It is not, as is sometimes supposed, a corrupt language, but a distinct dialect as much as the High German, though circumstances have caused the latter to become the language of literature and of the educated classes. (See GERMAN LANGUAGE AND LITERATURE.)

LOZENGE, *loz'-enjh* (Fr., *losange*).—In general language, a figure with four equal sides, having two obtuse and two acute angles; in geometry, this figure is usually called a *rhomb*, and when the sides are unequal, a *rhomboid*. A lozenge, in heraldry, is a figure resembling a pane of glass in an old-fashioned casement, on which are represented the coats of arms of maidens and widows. In confectionery, a lozenge is a small cake of pressed fruit, or of sugar, so called from its original rhomboidal form.

LUCIFER, or **PHOSPHOR**.—The classical name of the planet Venus, when it is the morning star—Vesper, or Vesperus, being its name when seen in the evening.

LUFF, *luff* (Danish, *loeven*).—A term used at sea when ordering the helmsman to put the tiller on the lee side, in order to make the ship sail nearer the wind; as, "Keep your luff." It also designates the roundest part of the bow of the ship.

LUNETTE, *lu-net'* (Fr.).—A term applied rather vaguely in Fortification to a work somewhat similar to a ravelin or demi-lune, but generally of smaller dimensions. It is probable that in its original signification the word comprised every detached work built in the form of an angle, and consisting of only two faces. It was afterwards used in a more restricted sense to denote small advanced works placed before the ravelin or other outworks.

LUSIAD, *lu'-se-ad*, is the name given to the great epic poem of Portugal, written by Camoëns, and published in 1571. As the Italians boast of Tasso, so do the Portuguese of Camoëns; and, indeed, the two poets were contemporary, but the Lusiad appeared before the Jerusalem. The subject of the Lusiad is the first discovery of the East Indies by Vasco de Gama, an enterprise splendid in its nature and extremely interesting to the author's countrymen, as it laid the foundation of their future wealth and consideration in Europe. This poem has been frequently translated into foreign tongues. There are various English translations.

LUTE.—In Music, a term probably derived

from the Teutonic *lut* (whence, modified, it has passed into most European languages), employed to designate an ancient musical instrument of the guitar kind, somewhat resembling in shape the section of a pear, and consisting of four parts—viz., the table; the body, which has nine or ten sides; the neck, containing as many stops or divisions; and the head or cross, in which the *sewres* are inserted. It is played upon by striking the strings with the fingers of the right hand, and regulating the sounds with those of the left. Its origin is unknown, but is generally believed to have been very ancient; it was, in all probability, derived from the ancient lyre. Vincentio Galilei ascribes its invention to the English, among whom, according to Burney, the first author who mentions it is Chaucer. Until the end of the 17th century, a knowledge of this instrument was considered an almost indispensable part of a good education; after that time, however, it became gradually superseded by the guitar. It is said to have gone out of fashion from its being considered to occasion deformity in ladies. It was used on the operatic stage at one time to accompany the recitative, and this continued till the days of Handel, at which time a lute was in use at the King's Chapel.

LYCEUM, *li-se'-um*, was the name of an academy at Athens, so called from its position near the temple of Apollo Lyceus. Here Aristotle and his disciples taught, and were called Peripatetics, from their habit of walking up and down its porches while delivering their lectures. In the present day, on the Continent, the name is given to preparatory schools for the universities, as in them the Aristotelian philosophy was formerly taught.

LYDIAN MODE, *lid'-e-an*, was an arrangement of music amongst the ancient Greeks. It was retained as one of the old church modes until the Reformation.

LYRE, *lire* (Lat.)—The most primitive of all stringed instruments, invented, according to the traditions of the Egyptians, by Mercury, in the year of the world 2,000. We find it first spoken of under this name by Aristophanes; it is also mentioned by Aymerie in the Life of Charlemagne. The Greeks, in all probability, derived their lyre from the Egyptians. It was at a very early period of its existence undoubtedly capable,

even with a very few strings, of producing a great variety of sounds differing in pitch. At first it possessed only three strings; to these, however, one was afterwards added by the Muses, and one each by Orpheus, Linus, and Thomyris; thus forming it into a heptae chord; this number was at last increased to eleven. The lyre was of a very graceful form, possessing a hollow body to swell the sound, and was played upon with a *plectrum*, or lyre-stick, of ivory or polished wood. Some lyres are said to have been constructed of tortoise-shell. One was invented by Leonardo da Vinci, in the shape of a horse's skull. The ancient names for this instrument were *lyra phorminx chelys*, *barbitos*, *barbiton*, and *cithara*.

LYRIC POETRY, *liv'-ik*, is commonly understood to be poetry intended to be sung or accompanied with music. This distinction was not at first peculiar to any particular species of poetry, for, originally, music and poetry were always joined together. After a time, the bards began to compose pieces which were to be recited or read, not to be sung; such poems as were still designed to be joined with music were, by way of distinction, called odes. The ode was that form of poetry under which the original bards poured forth their enthusiastic strains, praised their gods and their heroes, celebrated their victories, and lamented their misfortunes. It was chiefly in the spirit and manner of its execution that it was distinguished from other kinds of poetry. The subject being of a lofty and transporting nature, justified a bolder and more passionate strain than belonged to the simple narrative. Hence the enthusiasm that belongs to it, and the liberties it is allowed to take beyond any other species of poetry. Hence, too, that neglect of regularity, those digressions, and that disorder which it is supposed to admit of. The term lyric poetry is commonly applied to all kinds of verse that partake in any degree of the characteristics of that to which it was first applied. (See BALLADS.) The ancient Greeks speak of nine as the principal of their lyric poets; viz., Aleman, Alcaeus, Sappho, Stesiehorus, Ibycus, Anacreon, Simonides, Pindar, and Bacchylides; but, with the exception of Anacreon and Pindar, nothing remains to us of the works of these authors but a few fragments. To these two, however, the judgment of all has ascribed the palm of pre-eminence in lyric poetry.

M.

M, *em*, is the thirteenth letter and the tenth consonant of the English alphabet. It is the labial letter of the liquid series, and in all positions has one uniform, well-known sound, as *mine*, *camp*, *jam*. The sound of the letter is one of the easiest to articulate, and is therefore one of the first uttered by children, and in most languages it forms a prominent letter in the words for mother. The Hebrew name is *mem* (water), and the original form is supposed to have been a wavy line resembling water. The letter has a place in all known languages, and the English sound of it is that which it has also in most of the European tongues. In French and Portuguese, however, at the end of a word, and in most cases at the end of a syllable, it loses its proper sound, and serves only to give a nasal sound to

the vowel which precedes it. Among the ancient Romans, too, *m* was but very faintly pronounced, being rather a rest between two syllables than an articulation; and hence it was subject to elision. *M* passes easily into other letters, losing itself in the preceding or succeeding letters—a circumstance which the etymologist must bear in mind in seeking the derivation or connection of words having that letter in their root. *M* interchanges with *n*, *b*, *p*, *v*, and *w*, and frequently disappears altogether. Like other liquids, it also not uncommonly changes its position with regard to the vowel of a root. The Greek and Hebrew *m*, as a numeral, denoted 40; the Roman *m* (probably as being the initial letter of *mille*, a thousand) denoted 1,000; and this is its numerical value in English.

MAB, *ma*.—The name of a fairy celebrated by Shakespeare and other English poets. The name has been variously derived; but the most probable derivation of it is from the Cymric *mab*, a child. Shakespeare's epithet, "Queen," applied to Mab by Mercutio in *Romeo and Juliet* should probably be "Quean," a mischievous woman. "Queen Mab" is the title of one of Shelley's earlier poems.

MAC (frequently printed M').—A Gaelic prefix meaning "son of." Thus, Macdonald is equivalent to "son of Donald."

MACARONI.—A term much in use in the last century to describe the superfine, frivolous, over-dressed individual, afterwards known as a "dandy," and also applied figuratively to animals even which were supposed to approach the consummate elegance of the human prototype. In Sheridan's *School for Scandal*, Sir Benjamin Backbite reads a verse he has composed, in which are these lines:

"Sure, never were seen two such beautiful ponies;
Other horses are clowns, but these, macaronies."

MACARONIC VERSES, *mak-a-ro'-nik* (Fr., *macaronique*, from Ital., *maccheroni*).—A species of ludicrous metrical composition, in which the words of a modern language are Latinized, or mingled in a comic fashion with Latin words or phrases. The name was first given to this kind of composition by Teofilo Folengo, a Benedictine monk of Casino, who flourished early in the 16th century, and wrote under the name of Merlino Coccaio. His principal poem, "Macaronea," is a burlesque mixture of Latin, Italian, Tuscan, and plebeian words and forms, and satirically narrates the adventures of its hero until he finally arrives in hell; the three last books being a parody on part of Dante's "Inferno." In the preface or "apologetica" to the work, he describes this new species of poetry, deriving its name from macaroni; because, like that mélange, it should be coarse and popular. This style of composition soon became highly fashionable in England, France, Germany, and Italy. Macaronics were cherished by Rabelais, who often referred to Merlin the Cook (Coccaio). John Skelton introduced the style into England in the reign of Henry VII., and it continued fashionable during the reign of Elizabeth. Dunbar, a Scotch poet of Skelton's own age, was also distinguished in this way. His "Testament of Maister Andro Kennedy" represents the character of an idle, dissolute scholar, and ridicules the funeral ceremonies of the Romish Church, almost every alternate line being composed of the formularies of a Latin will and shreds of the breviary. Drummond of Hawthornden wrote also after this fashion, and there are productions of this style in the literature of nearly all European countries. A German collection of the principal works of the kind by Genthe, was published at Halle in 1829; and M. Octave Delepierre produced a history and collection of macaronic verse in Paris in 1852.

MACE, *maise*.—A term of doubtful etymology, originally signifying a club of metal used in warfare. The gradual course of improvement having rendered armour impenetrable by edged weapons, the mace was used as an instrument of effectual demolition. In its simplest form the mace was only a short, strong, iron club, and its shape varied among different nations and at different times; sometimes a ball was attached to the end by a triple chain.

MACHICOLATION, *ma'-shik-o-lai-shun* (Fr., *mâchecoulis*, from *mèches*, lighted materials; *couler*, to pour down).—A term bestowed on those openings in the parapet of a fortified building through which ignited substances, melted lead, stones, &c., were poured or hurled down at the besiegers.

MADAME, *mad'-ame* (Fr., *ma*, my, and *dame*, lady).—A French title, originally applied only to female saints and ladies of quality, but which is now common to all married women, of whatever rank or condition. Under the old French monarchy, the daughters of the sovereign received this title; the eldest being simply Madame, the others Madame Elizabeth, &c. More strictly, however, it belonged to the wife of the king's eldest brother, the sister of the king's father or mother, or the eldest daughter of the dauphin, by only one of whom could the title be borne at the same time. Mademoiselle was the title of honour borne by the daughters of the king's younger sons, and of his brothers and uncles; the one taking precedence of the others in rank or birth being Mademoiselle.

MADONNA, *ma-don'-na* (Ital., my lady).—A word originally used in Italy, like Madame in France, as a title of honour and dignity; but now more particularly applied to the Virgin Mary, as, in other languages, she is called Our Lady. It is also applied to a number of celebrated pictures in which the Virgin forms the sole or principal object; as the Madonna di San Sisto of Raffaele, now in the picture-gallery at Dresden.

MADRIGAL, *mad'-re-gal* (Sp. and Fr.).—A short poem, admitting of great lyrical liberty in the arrangement of the rhymes and verses. It expresses in simple language some tender and delicate thought, generally of an amatory or pastoral character, though occasionally it ventures upon a higher strain. The etymology of the word is uncertain, and numerous opinions have been hazarded regarding it. The earliest madrigals were those of Lemmo di Pistoia, set to music by Casella, who is mentioned by Dante. They were generally cultivated in Europe from the latter part of the 15th to the end of the 18th century. In England they attained a high degree of excellence during the reign of Elizabeth, and are said to be in no way inferior to those of Italy. The madrigals of Tasso are among the finest specimens of Italian poetry. The name is also applied to pieces of vocal music of a similar character.

MAGAZINE.—In Literature, the name has been adopted by periodical works of a miscellaneous character containing a variety of essays in prose and verse, reviews, &c. The use of the word in this sense is of modern introduction, having been in England first adopted in *The Gentleman's Magazine*, the first number of which was published in January, 1731, and which has been regularly continued monthly to the present time. Soon after *The Gentleman's Magazine*, a rival work appeared under the title of *The London Magazine*; but it was discontinued in 1785. *The Scots Magazine*, which was commenced at Edinburgh in 1739, is also numbered with the things that were. So is the *European Magazine*, started in 1782; but the *Westleyan Methodist Magazine*, 1784, the *Evangelical Magazine*, 1792, and the *Methodist New Connection Magazine*, 1797, still exist. The most successful magazines

started in the first half of the present century were the *New Monthly*, 1814; *Blackwood's*, 1817 (see BLACKWOOD'S MAGAZINE); *Fraser's*, 1830 (see FRASER'S MAGAZINE); *Metropolitan*, 1831; *Tait's*, 1833. The *Penny Magazine*, started by Mr. Charles Knight in 1832, was one of the earliest cheap weekly publications. The general price of the high-class magazines was half-a-crown; and various efforts were made to establish magazines at a lower price, among them *Douglas Jerrold's Shilling Magazine*, which had only a brief existence. In 1859 Thackeray was appointed editor of a new venture, the *Cornhill Magazine*, so named from the place of publication, and the great success it achieved encouraged the appearance of other periodicals with local designations, as *Temple Bar*, *St. Paul's*, and the *St. James's Magazine*. *Macmillan's Magazine* appeared in 1859, and *Longman's Magazine* in 1882. The name has been adopted by a very large number of periodicals representing different departments of literature, science, and art, and is now borne by nearly 800 monthly, bi-monthly, or weekly publications issued in the United Kingdom. Many of the most distinguished writers of this century have contributed to the higher class magazines, and some of the most famous works of fiction first appeared in their pages. Bulwer Lytton, Thackeray, George Eliot, among many other authors of the highest rank, were prolific contributors to magazines. More recently, monthly publications of a very important character have appeared, but the title *Reviews* has generally been adopted, as the *Fortnightly* and *Contemporary Reviews*, and the list of contributors includes many of the foremost men of the age in politics, philosophy, theology, and literature. (See REVIEWS.)

MAGDALEN COLLEGE, OXFORD, *mag'-da-len*.—This college, the full title of which is the College of St. Mary Magdalene, was first established as a hall in 1448, and afterwards, in 1457, as a college, by William of Waynflete, bishop of Winchester, and Lord High Chancellor of England, for a president, 40 fellows, 30 scholars called *demies*, a schoolmaster, an usher, 4 chaplains, an organist, 8 clerks, and 16 choristers. The statutory restriction of fellowships to certain counties and dioceses is abolished by an ordinance framed for the college under powers granted by 17 & 18 Vict. c. 81. There are now 30 fellows, two-thirds of whom must be in holy orders, and all the fellowships (worth about £300 a year, exclusive of rooms) are vacated by marriage; 30 demys, restricted to persons under 20 years of age and tenable for five years, the annual value being £95. Four exhibitions are offered for competition every year. Magdalen is one of the most famous of the Oxford colleges, and has 41 benefices in her gift.

Magdalen Hall was erected by Bishop Waynflete, for students previous to admission into his college, and was governed by one of the fellows till 1602, when it became an independent hall. In 1822 it was removed to the seat of the former Hertford College, and was abolished in 1874.

MAGDALENE COLLEGE, CAMBRIDGE, was founded in 1519 by Thomas Lord Audley of Walden, Lord High Chancellor of England, who endowed it for a master and four fellows. It had also fourteen bye fellowships. By the statutes there are 8 open fellowships, vacated at the end of ten years; twelve open scholarships, tenable for three years, and in value

varying from £20 to £60 a-year; one sizarship was granted annually, and there are 14 exhibitions, 10 of which are for students from Shrewsbury, and the others from Wisbeach, Leeds, Halifax, and Haversham, the value being from £30 to £75 per annum. The college has the patronage of 7 benefices.

MAGDEBURG CENTURIES. (See CENTURIES OF MAGDEBURG.)

MAGIC, *mag'-ik* (Lat., *magiis*).—In its ancient sense, this word signified the science and doctrine of the magi, or wise men of Persia (see MAGI); in a more modern sense, magic is a science which teaches how to perform wonderful and surprising feats, or to produce unexpected effects. Originally, the word magic carried with it an innocent and praiseworthy meaning, being used to signify the study of wisdom and the more sublime parts of knowledge. When, however, the ancient magi engaged themselves in astrology, divination, sorcery, and other similar branches of the occult sciences, the term magic became in time of bad repute, and was only used to signify an unlawful and diabolical art, depending on the assistance of the devil and of the spirits of the dead. The possession of magical powers has formed a portion of superstitious belief among all nations at all times; but of all people, the ancient Romans were the most superstitious in this and other respects. They placed the utmost belief in auguries and divinations. It is also a remarkable fact, that while their religion decreed these rites, they were always searching after fresh excitement from others, which were not only unauthorized but condemned by their own laws. Amongst these may be mentioned the magical practices of the Thessalian witches, of the Persian magi, and of the sorcerers of Egypt and Phrygia, and the numberless other foreign nations with whom they were brought in contact by their conquests. The emperors were constantly issuing and renewing edicts against these practices in the most ineffectual manner, and it is probable that from this circumstance magic began to be looked upon as a black and unholy art—an idea which became rooted in the minds of the inhabitants of southern Europe. In the North, supernatural power was looked upon with high respect; and in the East, the favourite land of sorcery and magic, the professors have from time immemorial been looked upon as venerable rather than as hateful. According to Cornelius Agrippa, magic may be divided into three kinds—natural, celestial, and ceremonial or superstitious. *Natural magic* is simply the application of natural active causes to passive subjects, by means of which many surprising, but yet natural, effects are produced. Without doubt, such have been some of those miracles wrought by ancient magicians, whose knowledge of the various powers of nature, there is reason to believe, was much greater than moderns think. *Celestial magic* closely resembles judicial astrology. It attributes to spirits a kind of rule or dominion over the planets, and to the planets a rule over the destinies of men. On this foundation a system was built up. *Superstitious magic* consists in the invocation of devils. Its effects are usually evil, but surpassing the powers of nature, being supported by some supposed compact, either tacit or express, with evil spirits. There is every reason to believe that this species of magic originated in Egypt. The first magicians mentioned in history were Egyptians; and that

people, so famed for their wisdom, not only believed in the existence of demons, but also that different orders of these spirits presided over the elements of fire, air, earth, and water, as well as over the persons and affairs of men. Consequently, every disease which flesh is heir to was laid to the charge of some particular demon. When a person was seized with a fever or other complaint, they never thought of searching for the natural cause of the disease, and so curing it; but, attributing the complaint to the possession of some demon, they endeavoured to drive it forth by means of incantations and charms. These notions spread from the Egyptians to the Hebrews, amongst whom we find a belief that nearly every disease was due to the agency of demons or devils. Superstitions of a similar stamp were also brought from Egypt and Chaldea by Pythagoras, and transmitted by him and his followers to the Platonists of Greece. The advance of the Christian religion, the revival of learning, and the progress of natural science, has long since banished this kind of superstition from all enlightened European nations; but the belief in the exhibition of magical powers is still prevalent among savage races, especially the uncivilized tribes of Africa, and the Indians of the American continent.

Magicians, *ma-fish'-anz*.—A term applied to such as practise the art of magic. The early Christians were derided by this name because it was pretended that our Saviour wrought His miracles by magic. Even in the time of Augustine, that writer speaks of a popular belief among the enemies of the Church, that Christ had written books on magic, which He delivered to Peter and Paul for the use of His disciples.

MAGIC SQUARE.—A square divided into a number of smaller squares, by lines parallel to the sides, and into which are inserted numbers, generally a term of arithmetical progression, in such a manner that each line of numbers, whether added together vertically, horizontally, or diagonally, shall amount to the same total. The arrangement of the figures is most easily effected when the number of spaces on the side of the square is odd or divisible by 4; but it is very difficult when the number is divisible by 2 and not by 4. In squares formed by double progression, as, for instance, one of nine squares, with the numbers 1, 2, 4, 8, 16, 32, 64, 128, 256, the product obtained by multiplying together the three terms of one row or the diagonal is the square of the mean term which is in the case selected, 16. It is related that these squares were held in great veneration by the Pythagoreans; and the alchemists and astrologers of the Middle Ages dedicated squares of this kind to the planets. At a later period mathematicians have written elaborate treatises on the subject; and Frémile de Bessy, one of the most eminent mathematicians of the 16th century, produced a large work, *Carrés, ou Tables Magiques*, published by the French Royal Academy of Science. The following are examples of magic squares, one with the number of squares divisible by 4, or "evenly even," as it is strangely called; the other with an odd number of squares on each side.

14	12	5	3	6	3	20	12	24
7	1	16	10	15	22	9	1	18
4	6	11	13	4	16	13	25	7
9	15	2	8	23	10	2	19	11
				17	14	21	8	5

In the one case, the total reckoned vertically, horizontally or diagonally is 34; in the other 65.

MAGISTER, *ma-jis'-ter* (Lat., master).—Formerly a title conferred upon one who had attained to some degree of eminence in literature or science. Those who are now styled doctors were formerly termed magistri.

MAGNANIMITY, *mag-na-nim'-e-te* (Lat., *magnus*, great, and *animus*, mind).—Literally great-mindedness, the possession of a mind above being swayed to and fro by the good or evil of this life. Magnanimity was a virtue much extolled by the ancient philosophers.

MAHABHARATA, or BHARATA, *ma-hab-a-ra'-ta* (Sanskrit, *mahat*, great, and *Bharata*, the name of a legendary king).—The name of the most celebrated epic poem of the Hindoos, after the Ramayana. (See RAMAYANA.) This poem is chiefly devoted to an account of a long civil war between two dynasties of ancient India—the Kurus and Pandus; but around this history an immense collection of ancient traditions, moral reflections, and popular stories have been gathered. The earlier sections of the book are chiefly occupied in solving theogonical and cosmogonical problems, while in the last chapters are didactic and moral episodes on religious duties and sacrifices, forming an almost complete system of Hindoo ethics, and a compendium of the Brahminical faith. The poem is a work of great antiquity, but neither the time of its composition nor the period in which it assumed its present shape can be ascertained. The great war is, undoubtedly, an historical event, and is supposed to have taken place in the 12th century B.C.; and the entire poem is a valuable mine of antiquarian lore on the early history of the Hindoos. A complete edition of the Mahabharata, in the original Sanscrit, has been published by the Asiatic Society of Bengal; and a number of detached fragments and stories have been translated by Sir Charles Wilkins, Professor Wilson, and Mr. Milman.

MAHAVANSA, *ma-ha-van'-sa*.—The name of two famous works relating to the early history of Ceylon. They are written in the Pali language. The earlier book was probably written in the 5th century of our era. The later work is an improved edition and continuation of the former.

MAIL, *male* (Fr., *maille*).—A network of metal used to form a defensive armour. (See ARMOUR.)—It was more pliant and lighter than plate-armour, and afforded an admirable defence against any weapon in use at the time when it was worn.

MAIL (Fr., *maille*, a trunk or bag).—A bag or case for conveying letters, from which the term has been extended to the means of conveyance. Thus, we have mail-coach, mail-train, &c., and speak of the time when "the mail goes out" or arrives. Mail-coaches for the conveyance of letters were first established at Bristol by Mr. John Palmer, of Bath, in August, 1784, and soon became general throughout England.

MAILED CHEEKS.—A family (*Sclerogentide*) of acanthopterous fishes, remarkable for an enlargement of some of the bones of the head and gill-covers, which form a protection for the cheeks. Among the best-known species are the gurnard and the bull-head (which see). The species are met with in nearly all seas, and some are found in lakes and rivers.

MAJESTY, *ma'-jes-te*.—In Heraldry, "an

eagle in his majesty," is blazoned as an eagle crowned and holding a sceptre.

MAJOLICA, OR FAIENCE, *ma-yol'-e-ka*.—A kind of fine pottery made to imitate porcelain, and superior to common pottery in its glazing, beauty of form, and richness of colouring. Its name of faience is derived from the town of Faenza, in Romagna, where it is said to have been first manufactured in 1299. This fine pottery was called by the Italians Majolica, because the first specimen known came from Marjorca. Some of the great artists of the period, Raffaele, Giulio Romano, Titian, and others painted upon this material, and the preserved specimens are highly valued as works of early art. Between 1530 and 1560 the majolica reached its highest perfection. Modern faience seems to have been invented about the middle of the 16th century, and obtained its name in France, when a man from Faenza discovered a similar clay at Nevers, and introduced the manufacture of it. English stone ware, made of powdered flint, has some resemblance to majolica ware, but is, in reality, very different. The manufacture of majolica has greatly improved in this country of late years. It is a clever imitation of the original faience, the articles being made of coloured clay, and coated with a white opaque varnish.

MAJOR, *mai'-jor*.—In Music, the name applied to that of the two modern modes in which the third is four semitones above the tonic or key-note. It is also employed to indicate those intervals which contain the greatest number of semitones under the same denomination, as a third consisting of four semitones instead of only three, is called a *major third*; or a sixth containing nine instead of eight semitones, is termed a *major sixth*.

MAL, *mal* (Lat., *malus*, bad), is a prefix of certain words, meaning bad, wrong, fraudulent; as, mal-administration, mal-practice, &c.

MALABATHRUM, *ma-lab'-ath-rum*.—A name given in ancient Greece and Rome to aromatic leaves used as a medicine, a perfume, and a flavouring for wine. They were obtained from India, and were probably the leaves of a species of cinnamon.

MALINGERING, *ma-ling'-er-ing* (French, *malingne*, sickly).—A term applied, especially in the army, to the feigning of disease. (See **FEIGNED DISEASES**.)

MALL, OR PALL MALL, *mall*, or *mawl*.—The name of a game formerly very popular in England. It was played by striking a box ball with a stick or mallet, through a ring or arch of iron, one of which stood at each end of an alley; and he that could do it with the smallest number of blows was victor. The game of mall was a fashionable amusement in the reign of Charles II., and the walk in St. James's Park, known as the Mall, received its name from having been appropriated by the royal party to this game. At an earlier period, the site of the street now called Pall Mall was used for this purpose. The name mall seems to have been given to the game itself from the mallet with which the ball was struck, and pall mall to the ground or alley on which it was played.

MALTA, KNIGHTS OF. (See **HOSPITALIERS**.)

MAMMON, *mam'-mon*.—A Syrian term for riches, and is used in the teachings of Christ, as a personification of worldliness. Milton makes him a fallen angel; and Spenser has personified him in his noblest manner in the "Fairie Queene" (book ii. canto 7), where he represents Sir Guyon amid the secret treasures of the "god of the world and worldliness."

MANDARIN, *man'-da-rin* (Port., *mandar*, to command).—A term used by Europeans to designate the officers of state in China. The Chinese term is *kwan*. Mandarins are all men of learning, who have passed certain examinations, and had their names inscribed on a register. When an office in the administration is vacant, a list of those that stand foremost on the register is presented to the emperor, who nominates one for the vacant office. The origin of the system of competitive examinations in the bestowment of government offices thus belongs to the Chinese. There are nine ranks, distinguished by different coloured buttons on the cap, varied emblazoning on the breast, and clasps on the girdle.

MANDOLIN, *man'-do-lin*.—A musical instrument of the guitar kind, the *cordatura* of which consists of four double strings. It is remarkable for beauty of tone, and is chiefly used for accompaniment.

MANETHO, HISTORY BY, *man'-e-tho*.—A history of ancient Egypt, written in Greek, by Manetho, an Egyptian priest of the time of Ptolemy I., about 320 B.C. The history was divided into three books—the first extending from the mythic reigns of the remotest ages to the end of the 11th dynasty; the second including the 12th to the 19th dynasties, and the third reaching to the conquest of Egypt by Alexander the Great, 332 B.C. Manetho assigns an enormously long period, nearly 25,000 years, to the mythic period. The only portions of the history remaining are extracts by Josephus, the Jewish historian; but Eusebius and other old ecclesiastical writers wrote epitomes.

MANCH OR MAUNCH, (Fr., *manche*)—A charge in Heraldry, supposed to represent a sleeve with long pendent ends, of the form worn by ladies in the reign of Henry I.

MANNING THE YARDS.—A complimentary mode of receiving the visit of any distinguished person to ships of the royal navy. The sailors, in white uniforms, stand on the yards, holding to a rope which runs across. The effect is very striking, but the practice is attended with some danger, and is now not frequently resorted to.

MANŒUVRE, *ma-noo'-ver* (French, *main*, hand; *œuvre*, work).—A military and naval term applied with very little regard to its etymology, to the movements of troops or ships, by which the enemy is compelled to depart from his plan of action.

MAN-OF-WAR.—A term formerly applied to all vessels belonging to the royal navy, whether ships of the line or frigates; but, since the introduction of ironclads, the term is almost obsolete. (See **NAVY**.)

MANSION, *man'-she-on* (Lat., *mansio*).—In Law, a term commonly used to denote the lord's chief dwelling-house within his fee. Among the ancient Romans, *mansio* was a place appointed

for the lodging of the princes, or of soldiers in the journey. The term mansion is popularly applied to any spacious and handsome residence; but house-agents usually limit it to houses having two staircases.

MANTELPIECE, *man'tel-peece*.—The lintel over the opening of a fire-place. In some old houses it is elaborately carved and ornamented. The modern form is that of a shelf supported by solid ornamental brackets.

MAN-TIGER, *man'ti-ger*.—In Heraldry, the representation of a monster with the body of a tiger on the head of a man, with long spiral horns. Occasionally the horns resemble those of an ox, and dragons' feet are added.

MANTLE, *man'tel*.—A long robe worn by knights over the armour. It is an important part of the costume of members of various orders of knighthood. Ladies of rank wore similar mantles, generally embroidered with coats of arms.

MANTLET, *mant'let*.—A temporary fortification of planks, or iron-plates, for the protection of gunners in embrasures or casemates.

MANTLING, *mant'ling*.—In Heraldry, an ornament (known also as a lambrequin) hanging down from the helmet and behind the escutcheon. It is probably intended to represent the military mantle or robe of estate.

MANUAL, *man'u-al*.—A term frequently applied to a class of books of a size to be easily handled, and professing to give a concise account of the subjects of which they treat.

In Military language, the Manual is an exercise in which recruits are practised, to give them the free use of their limbs, and accustom them to carry a rifle.

MANUSCRIPT. (See ILLUMINATION, PALÆOGRAPHY.)

MANUSCRIPT, ALEXANDRIAN. (See ALEXANDRIA MANUSCRIPT.)

MAP, *map* (Lat., *mappa*, a towel, or cloth; maps may have been originally drawn upon cloth).—A delineation of the surface of the earth, or any part of it, exhibiting the lines of latitude and the relative positions of countries, mountains, seas, rivers, &c. For the construction of maps different mathematical hypotheses have been adopted. *Projection* is one method of construction, in which the boundaries of countries and their more remarkable features are represented according to the rules of perspective, on the supposition of the eye being placed on some point of the sphere, or at some given distance from it, which may be increased indefinitely. (See PROJECTION.) This method answers very well when the surface to be represented is of small extent and the point of view nearly over the centre; but when the surface is of great extent, places near the border of the *projection* are much distorted. *Development Maps* are constructed on the supposition that the spherical surface of the earth to be represented is a portion of a cone, the vertex of which is situated somewhere in the polar axis produced, and the conical surface is supposed either to touch the sphere in the middle parallel of the map, or to fall within the sphere at the middle parallel, and without it at the extreme parallels. The surface of the cone is then supposed to be spread out into a plane. Another method of constructing maps

depends upon the development of a cylindrical surface, by which means they have the parallels of latitude and circles of longitude respectively represented by parallel straight lines. Terrestrial maps of this description are usually called *Mercator's Charts*, although the invention is due to an English mathematician, Edward Wright. *Celestial maps* are representations of the positions of the stars on a plane surface, constructed on similar principles.

MARAUDING, *ma-raud'ing*.—Plunder or violence to the inhabitants by soldiers when in a foreign country.

MARBLES, ARUNDELIAN. (See ARUNDELIAN MARBLES.)

MARBLES, ELGIN. (See ELGIN MARBLES.)

MARCATO, *mar-kai-to*.—A term in Music implying that a passage must be played in a strongly accented or marked manner.

MARCH, *martsh* (Lat., *Martius*, Mars).—The name of the third month of our year, containing thirty-one days. It was so named, according to tradition, by Romulus, in honour of his father Mars, and was the first month of the Roman year; and, indeed, till the alteration of the style in 1752, the legal year in England commenced on the 25th of March. The Anglo-Saxons commonly called this month *Hyd month*, the loud or stormy month; and the last three days of it are still known in some parts as the borrowing days (which see).

MARCH.—A military air to regulate the steps and enliven the spirits of soldiers, and the form has been adopted in secular and religious music as appropriate to ceremonial and other processions. A march ought always to be written in common time, beginning with a broken bar with an odd crotchet or quaver. On parade occasions, it is played in slow, but for ordinary marching in quick, time.

MARCHING.—The regular step taken by soldiers, each man stepping at the same time and with the same foot. In the slow march, the British infantry soldiers march 75 paces in a minute; in the quick march, 110 paces; and in the double quick, 150 running paces.

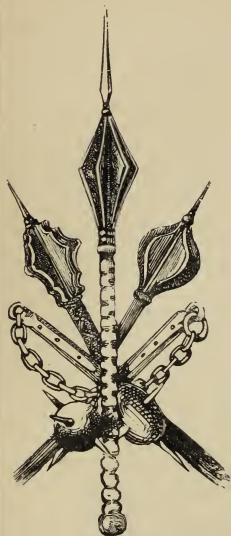
MARINED.—In Heraldry, the figure of an animal, the lower part of which is made to resemble the tail of a fish.

MARIONETTES, *mar-i-o-nettes*.—Jointed puppets moved by means of a spring or thin strings. Very amusing results are obtained if the operator is skilful, and especially if he possesses a power of vocal mimicry or ventriloquism. The ancient Greeks and Romans amused themselves with puppets of this character; and in recent times, short dramatic pieces have been represented by marionettes.

MAROONS, *ma-roons*.—A name given in Dutch Guiana and Jamaica to runaway slaves. When the British conquered Jamaica in 1655, the Spanish occupiers deserted their slaves, who took refuge in the hilly districts, carrying on a predatory warfare with the British colonists until 1795, when they were subdued, some of them being sent to Sierra Leoni. The Maroons of Dutch Guiana form small independent communities.

MARSEILLAISE, THE, *mar-sai'e-yaize*,

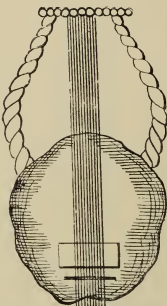
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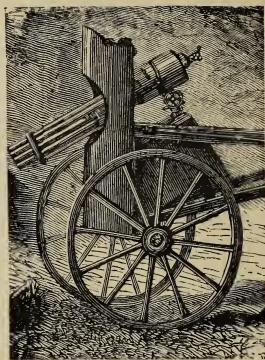
MACES.



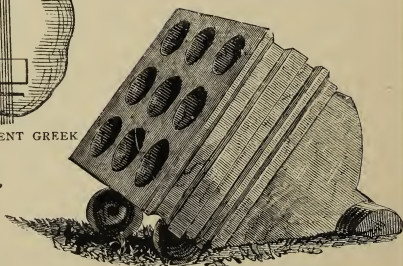
MITRE.



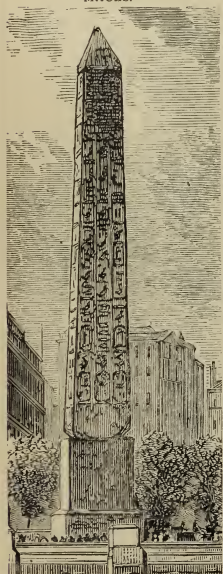
LYRE, ANCIENT GREEK



MITRAILLEUSE.



MORTAR OF THE 17TH CENTURY.



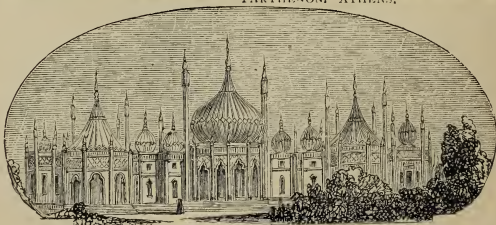
OBELISK—CLEOPATRA'S NEEDLE.



NICHE.



PARTHENON, ATHENS.



PAVILION, BRIGHTON.

is the name of the celebrated national song of France, at the time of the Revolution, and still regarded as the national anthem of the "advanced" party. It was composed by Rouget de l'Isle, an officer in the engineer corps at Strasburg, early in the French Revolution. It was first called *L'Offrande à la Liberté*, and soon became very popular throughout the country, contributing in no small degree to the success of the revolutionary arms. It received its present name from being sung for the first time in Paris by a band of men who were brought from Marseilles by Barbaroux, to aid in the revolution of August 10, 1792.

MARSHALLING OF ARMS, *mar'-shal-ing*.—In Heraldry, the arrangement and distribution of several coats of arms, belonging to distinct families, in the same escutcheon or shield, together with their ornaments, parts, and appurtenances, so as to denote the several marriages and alliances of the families.

MARTELLO TOWERS, *mar-tel'-lo*.—A series of circular fortifications, consisting of towers of two stories high, which were erected along the Kentish coast, in Ireland, Jersey, and in other parts, in order to repel the threatened invasion of Napoleon Bonaparte in the early part of the present century; but now regarded as useless for purposes of defence, and in many instances appropriated as residences for men of the coast-guard. The name of these towers is derived from one built at Martella Bay, in Corsica, which afforded a determined resistance to the English troops in the year 1794.

MARTIAL EPIGRAMS OF.—A collection of epigrams, divided into 14 books, written by Marcus Valerius Martialis, a Spaniard by birth, but for a long period (66 A.D. to 100 A.D.) a resident in Rome. The epigrams are models, in respect of wit and smoothness of construction, of that species of literary composition, but are often outrageously gross.

MARTINET, *mar-ti-net'*.—A phrase applied to a severe military disciplinarian. The term is said to be derived from a Colonel Martinet, of the army of Louis XIV. of France, who was notorious for his rigorous conduct, and who invented a peculiar whip, called by his name, for the purpose of military punishment.

MARTINI-HENRY RIFLE.—This form of rifle was adopted by the Government upon the recommendation of a committee of investigation formed in 1868. After many thorough and careful trials of various forms of rifle, this committee advised the adoption of the Martini breech mechanism, with the Henry barrel and rifling, and the Boxer ammunition. The breech of the Martini has been allied with the barrel of the Henry rifle, each of these separate parts having been proved the best of their kind.

MARTLET, *mart'-let*.—In Heraldry, a bird resembling a swallow, but with no visible legs. It was given as a mark of cadency to the fourth son. Martlet was an old name for the martin. In Shakespeare's *Macbeth*, Banquo speaks of "this guest of summer, the temple-haunting martlet."

MARY (ST.), HALL, OXFORD.—In 1325, Oriel College, which had become possessed of the church and parsonage of St. Mary's, converted the latter into a place of education, which in course of time became an independent hall.

It has four Dyke scholarships, limited to persons born in Somersetshire, Devonshire, or Cornwall, or who have been resident in one of these counties for three years. The scholarships are tenable for four years, and are of the annual value of £60. There is also one exhibition of the annual value of £30, and tenable for four years.

MASCLE, *mas'-kl* (Lat., *mascula*, the mesh of a net).—In Heraldry, a lozenge-shaped figure, perforated, and with a narrow border.

MASK, (Fr., *masque*).—A covering for the face, generally representing a face with a majestic or a grotesque expression, according to the purpose for which it was worn. The origin of this disguise is of remote antiquity; but it is known that masks were used in the celebration of the orgies of Bacchus, in which a considerable amount of dramatic representation was resorted to, Bacchus, Silenus, and satyrs being personified. The Greek actors wore masks, often provided with metallic mouthpieces, so as to enable the voice to be heard in the vast open-air theatres. In modern pantomimic performances, derived from the Italian drama (see PANTOMIME), grotesque masks are very conspicuous. The covering for the face worn at masquerades does not represent features, and is not strictly a mask, but a visor.

In Architecture, masks are representations of faces carved as decorations, generally on keystones.

In Military language, a masked battery is one hidden from the enemy, until he is in a position, when it can open fire on him. A battery is also said to be masked when its fire is impeded by the presence of friendly troops in its line of fire, or when a superior force of the enemy holds it in check.

MASONET.—A term of Heraldry, indicating the lines formed by the junction of the stones in building.

MASQUE, *mask* (Fr.).—A species of dramatic performance, at one time greatly in vogue. It appears to have originated from the custom in processions and other solemn occasions of introducing personages in masks in order to represent different characters. (See MASK.) On the introduction of the masque into this country, a dramatic character was added to the exhibition. During the progresses of Queen Elizabeth, monologues or dialogues in verse were often recited by masked performers; and in the reign of James I. masques had assumed all the forms of dramatic compositions. With the exception of Milton, who wrote the magnificent masque of "Comus," the only classical English writers who devoted much labour and taste to this class of exhibition were Ben Jonson and Fletcher. Their productions were acted at court, and the queen of James I. and Queen Henrietta Maria took part in some of them. During the reign of Charles I. the taste for masques died out, and never came into fashion again after the Commonwealth.

MASQUERADE, *mask-e-raid'* (Ital., *mascherata*).—A term applied to a species of amusement, in which persons of both sexes mask or disguise themselves, and engage in dancing, festivities, or miscellaneous conversation. Masquerades are said to have been the invention of Granacci, an Italian, who lived in the beginning of the 16th century. In Italy they were fashionable in 1512, and during the reign of Henry VIII. they were first introduced into England. In the latter part of the last century, masquerades at the Pantheon and other places were

extremely fashionable, and are frequently referred to in the comedies and light literature of the period. Masked balls, or *bals masqués*, are very popular in Paris in the Carnival time, and have been imitated in this country; but became so objectionable from the opportunities for immorality that they are now obsolete in England. The *bal costumé*, or ball in which the company wear fancy dresses, is an unobjectionable substitute.

MASTER-SINGERS, OR MEISTER-SANGERS. (See GERMAN LANGUAGE AND LITERATURE.)

MATADOR. (See BULL-FIGHTS.)

MATCHLOCK.—A hand gun used in the middle ages, and fired by the application of a slow-match to the touch-hole. Towards the end of the 14th century an improvement was effected by the introduction of a crooked lever, in which the match was fixed, and which, when the trigger was pulled, brought the match down on the powder.

MATHEMATICIAN, *math-e-ma-tish'-an*.—One who is proficient in the study of mathematics. The name was frequently applied by the old Romans to the professors of astrology, because they usually combined the study of mathematical science with their fantastic attempts to foretell events from the position of the stars.

MAUSOLEUM, *maw-so-le'-um*.—A sepulchral building erected for the purpose of receiving burial urns or coffins. It originally signified the sepulchre of Mausolus, king of Caria, a magnificent edifice erected by his Queen Artemisia, at Halicarnassus, B.C. 353. The description of the mausoleum as given by Pliny is very unsatisfactory, although it is the most complete which we possess. The very site of the building was in doubt until Mr. C. T. Newton, keeper of the Greek and Roman antiquities in the British Museum, discovered its remains at Budrum, in Asia Minor. Representations having been made to the English Government, an expedition was fitted out in 1856, and by careful excavations and examinations, the original site was clearly made out, and some very extraordinary statues and sculptures in marble obtained, which are now in the British Museum. According to Pliny, the original building was an oblong quadrangular *cella*, 63 feet from north to south, 411 feet in circumference, and 37½ feet in height, decorated with a peristyle of 36 columns, and carried up into a pyramid surmounted by a chariot and four horses, executed in marble by Phileus, one of the architects. In many respects Mr. Newton's measurements agree with those given by Pliny.

MAY, *may* (Lat., *maius*).—The fifth month of the year. It has thirty-one days. It was second in the old Alban calendar, third in that of Romulus, and fifth in that of Numa Pompilius. In the Alban calendar it only had twenty-six days, in the calendar of Romulus thirty-one days, and in that of Numa thirty days. The odd day of which Numa deprived it was restored by Julius Cæsar. The etymology of the word is doubtful. It was called *Maivs* by Romulus, in respect to the senators and nobles of his city, who were called *Majores*, as the month following was called *Junius*, in honour of the youth of Rome, who served him in war, and were named *Juniores*.

Some etymologists are of opinion that it was called *Maia* from the goddess of that name, the mother of Mercury, to whom they offered sacrifices on the first day of this month. The sun enters Gemini during May, and the plants of the earth generally begin to flower.

MAY-DAY, *may'-day*.—The 1st of May. From an early period it was the custom for all ranks of people to go out "a-maying," as it was called, early on the 1st of May. In all parts of England, at the dawn of May-day, the lads and lasses left their towns and villages, and repaired to the woodlands with music and singing. There they gathered the *May*, or blossoming branches of the trees, and bound them with wreaths of flowers. Returning home by sunrise, they decorated the lattices and doors of their dwellings with their scented spoil, and spent the rest of the day in sports and pastimes. According to Bourne, the after-part of May-day was chiefly spent in "dancing round a tall pole, which is called a Maypole, which, being placed in a convenient part of the village, stands there, as it were, consecrated to the goddess of flowers, without the least violation offered to it in the whole circle of the year." At one time, as we can see from the writings of Chaucer, Shakespeare, Browne (author of "Britannia's Pastorals"), and others, the customs of May-day were not only observed by the vulgar but also by royal and noble personages. But they gradually fell into disuse, till the celebration of the day was left entirely to the chimney-sweepers, with their "Jack in the Green," who in some places still go about on May-day in tawdry finery, to beg money. In some country villages, however, a feeble attempt at "going a-maying" is still made. The celebration of May-day probably had its origin in the worship of Flora, who was supposed to be the goddess of flowers, and whose rites were solemnized at that season by the ancients. The earliest notice of the celebration of May-day in this country was by the Druids, who used to light large fires on the summits of the hills in honour of the return of spring.

MAZURKA, OR MAZOURKE, *ma-zur'-ka*.—A Polish national dance in $\frac{3}{4}$ or $\frac{2}{4}$ time, of a peculiar rhythmic construction, somewhat resembling that of the *polacca*.

MECHANICS' INSTITUTES are certain establishments which have been instituted in most of our larger towns for affording instruction to the working classes. The first idea of them is attributed to Dr. Birkbeck, who, in the year 1800, delivered a course of lectures on natural philosophy to working men in Glasgow. It was not, however, till about twenty years later that mechanics' institutions came to be established; and for a time they were very popular, and almost every town of 3,000 or 10,000 inhabitants had its mechanics' institute. Short courses of popular lectures on various subjects, as chemistry, natural philosophy, botany, political economy, &c., were delivered. In some cases reading-rooms and libraries were attached, and classes for English, grammar, arithmetic, French, &c., established. They are supported partly by subscription and partly by contributions of the members. For some reason or other, however, mechanics' institutions have not been so successful as was expected; many of them have had to be given up, and others obliged more or less to alter their original in-

tention and become more popular. After two or three lectures, the interest begins to flag. Wherever, then, a special subject is taken up, it ought to be exhausted in two or three lectures; and particularly the subject ought to be of an interesting and popular character; as, accounts of men and places, travels, readings from popular authors, and occasional concerts. Reading-rooms and libraries in connection with mechanics' institutes are generally found to be well appreciated.

MEDALLION, *me-dal'-le-on*, is a term applied to those larger medals which, if gold, exceed the *aureus* in size; if silver, the *denarius*; and if copper, the first or large brass. There have been many discussions among antiquaries as to the purposes for which medallions were designed; they are generally, however, supposed to be struck, like the medals of our own time, to commemorate some important event. Yet there are circumstances connected with them which render it not at all improbable that they were intended for circulation as money. Those struck in the Grecian empire are more common than those of Rome, but are of inferior workmanship. There exist in the present day a gold medallion of Augustus and one of Domitian; but few, in any metal, are found of the eras of Adrian and Antonine; those of brass are the largest, several being many inches in diameter. Impressions of both medals and medallions can easily be taken by pouring a little isinglass, previously melted in brandy, over the coin to be copied, and letting the solution spread over the whole surface. After standing a day or two, it will be quite hard, and on being taken off, will be found to contain a clear impression. (See NUMISMATICS.)

Medallion, in Architecture, is a term applied to a circular panel, having with it a bas-relief of a head or bust, &c.

MEDALS, *med'-al-z* (from the Gr. *metallon*, metal).—Circular pieces of metal cast on some especial occasion to celebrate some important event or personage. The greatest difference that exists between the medals of ancient and modern times is that those of the later period have often portraits of illustrious personages who are not of regal origin, while those of the former never bear any but royal or imperial celebrities. The study of medals is indispensable to archaeology, and indeed to a thorough acquaintance with the fine arts. Medals indicate the names of provinces and cities, while determining their position, and they also present pictures of many places celebrated in history. They also fix the period of events, determine occasionally their character, and at the same time enable us to trace the different races of sovereigns who at various times have governed particular parts of the world. They also show us the different metallurgical processes, they enable us to discover the various alloys, the mode of gilding and plating practised by the ancients, the metals which they used, and their weights and measures, their different modes of reckoning, the names, titles, and orders of their various magistrates and princes, while also giving us their portraits; their different characters, modes of worship, with all their attributes and ceremonies, are likewise disclosed, and, in fact, everything that pertains particularly to civil, military, and religious usages. The ancient medals were either struck or cast; some, however, were first cast and then struck. Medals have two sides; the obverse side, which contains

a portrait of the person in whose honour it was struck, or other figures relating to him. The reverse of the medal contains mythological, allegorical, or other figures. The words which are around the border form what is termed the *legend*, while those in the centre are the *inscription*. Of all medals, those from Egypt are the most ancient; and next to these rank those of Greece, the latter far surpassing the former in beauty of design and clearness of execution. Those of ancient Rome are extremely beautiful, the engraving being fine, the taste unexceptionable, and the invention simple. These latter are divided into two classes—consular and imperial. Of these the former are the most ancient, for the copper and silver ones do not go further back than the 484th year of the Roman period, while those of gold do not extend further back than to the year 546. The imperial medals first commenced under Julius Cæsar, and continued until the year A.D. 260, the lower empire containing a space of 1200 years, ending with the capture of Constantinople. (See NUMISMATICS.)

MEDLEY, *med'-le* (Ang.-Sax.)—In the melopœia of the ancients, was that part which consisted of the proper intermixture of the modes and genera called by the Greeks *agage*. At the present day, the word medley is employed to designate a numerous assemblage of the detached parts of different popular songs, so arranged that the latter words of the sentence or tune of one song connect with the beginning of another.

MELODRAMA. (See DRAMA.)

MELODY, *mel'-o-de* (from Gr., *melos*, a song).—A term synonymous in modern music with air; a succession of simple sounds so arranged as to produce a pleasing effect upon the ear. It may be defined as a series of sounds more fixed and generally longer than those of common speech, arranged with grace, and of proportionate lengths, such as the mind can easily measure and the voice express. Of the relative importance of melody and harmony it is useless to speak, as they may be said to generate into each other, the one being the selection of single sounds from a harmonic source, and the other a union of two melodies simultaneously heard. Thus they are closely connected and of equal importance, the one being necessary to the other. (See HARMONY.)

MELPOMENE, *mel-po'-men-y* (literally, meaning the singing one), the muse of tragedy.

MEMBERED, *mem-berd*.—A term in Heraldry used to denote that a bird has its legs—*i.e.*, its *emblers*—of a different colour from its body.

MERMAID, *mer'-maid* (from Ang.-Sax., *mere*, the sea, and *maid*).—A fabulous creature, described by seamen as possessing a figure, the upper part of which is like a woman, while the extremities are those of a fish. Mermaids are usually represented with long hair, which they are believed to be constantly combing. The supposition, no doubt, owes its origin to the appearance of some of the cetaceans, as the phocæ, which at a distance resemble the description given of the mermaid.

MERN, *me-ren*.—A sacred but fabulous mountain of the Hindoos, supposed in their mythology to be the abode of the god Vishnu. It is imagined to be 80,000 leagues high, and to be situate in the centre of the world.

MESS, *mess* (from Fr., *mets*, a dish of meat).—In Nautical language, denotes any particular company or class of the crew of a ship who mess together, or, in other words, partake of their meals in company; as the *gun-room mess*, &c. In the Army, the word *mess* is capable of a more extended signification, as it applies to the whole of the officers of a regiment, who, in a species of club, mess together. The mess is kept up by a certain proportion contributed from each officer's pay. The funds thus collected are termed the *mess funds*, out of which all expenses connected with the victualling department of the officers are defrayed.

METAMORPHOSIS, *met-a-mor'-fo-sis* (Gr., *meta*, change; *morphe*, form), transformation; the change of a person or thing into another form. The ancients held two kinds of metamorphosis—the one real, the other apparent. The metamorphosis of Jupiter into a bull, and of Minerva into an old woman, were only apparent; whilst the transformations of Lycaon into a wolf, and of Arachne into a spider, were held to be real metamorphoses. The idea of metamorphosis presents a great charm to the active imagination of nations in the first stages of their history; and early man, unable, from his limited knowledge, to refer the changes of nature to their proper causes, allows his imagination to ascribe these mysteries to metamorphosis. Most of the ancient metamorphoses include some allegorical meaning. Ovid's collection of narratives respecting the changes wrought by the power of the gods of Greece and Rome is a history of transformations poetically related.

METAPHOR, *met'-a-for* (Gr., *meta*, over; and *phero*, I carry).—A figure in Rhetoric, expressing a short similitude, that is to say, one that is exemplified in a single word. The metaphor is transferred, as its name implies, from the subject to which it properly belongs to another to which it is added in order to convey a peculiar sense. It must be merely an epithet or an auxiliary term; whence arises its difference from **COMPARISON** (see *see*). Brevity and power are the characteristics of the metaphor; while novelty shows the original wit; unexpected contrast may thus produce an effect sublime or ridiculous in the highest degree.

METHOD, *meth'-od* (Gr., *methodos*, a way), is the means or path by which we proceed to the attainment of some object or aim. In this sense, every art and science has its own proper method; but besides this, there is a universal method, or a science of method, by which every step in our progress through the whole circle of art and science should be directed. "The relations of things," says Coleridge, "form the prime objects, or, so to speak, the materials of method; and the contemplation of those relations is the indispensable condition of thinking methodically." Descartes has also written a discourse on "Method," in which he lays down four general rules to be observed in carrying out investigation. (See **CARTESIAN PHILOSOPHY**.) Method is usually described as the fourth part of logic, and "may be called, in general, the art of disposing well a series of many thoughts, either for the discovering truth when we are ignorant of it, or for proving it to others when it is already known." Thus there are two kinds of method,—one for discovering truth, which is called analysis, or the method of resolution, and which may also be called the

method of invention; and the other for explaining it to others when we have found it, which is called synthesis, or the method of composition, and which may be also called the method of doctrine. (See **LOGIC**.)

METONYMY, *met-on'-e-me* (Gr., *metonymia*, from *meta*, change, and *onoma*, a name).—A figure of speech by which the name of one thing, or idea, is substituted for another, to which it stands in the relationship of cause and effect, container and contained, or sign and thing signified; as when grey hairs are used to denote old age; the cup for the liquor contained in it; the sceptre for regal power.

METOPE, *met'-o-pee* (Gr., *meta*, between; *ope*, an aperture).—The square piece or interval between the triglyphs in the Doric frieze. In its original Greek meaning, the word signified the distance between one aperture or hole and another, or between one triglyph and another, the triglyphs being supposed to be solives or joists that fill the apertures. The ancients were in the habit of ornamenting the metopes with carved works or with paintings representing the heads of oxen, vessels, and other objects used in sacrificing. The metope is omitted in the Ionic and Corinthian orders, probably on account of the difficulty experienced in disposing the triglyphs or metopes in symmetrical proportion.

METRE, in versification. (See **PROSODY**.)

METRONOME, *met'-ro-nome* (Gr., *metron*, measure; *nome*, division).—An instrument employed to mark the time of music, the test of which is that when set at 60 it shall beat seconds. It is in the shape of an obelisk, and nearly a foot in height. There are two kinds: the one rather complicated, having a pendulum kept in motion by means of a spring and wheelwork, while the other is extremely simple, consisting merely of a pendulum without any machinery, which is made to vibrate by striking it with the finger. As early as 1698, an instrument upon a like principle was known in France; but it was not till 1812 that the metronome at present in use was invented, some say by J. N. Maelzel, while others attribute the discovery of the mechanical principle of this instrument to Winkel of Amsterdam, and assert that Maelzel only added the scale of numbers affixed to the pendulum. Although this ingenious little instrument was greatly opposed at its introduction, it is now generally acknowledged to be of great utility both to composers and performers.

MEXICO, ANTIQUITIES OF, *mek'-si-ko*.—The early condition of Mexico has been partly ascertained by means of Mexican pictures, most of which were destroyed by the Spaniards. These pictures contain chronological histories, and copies of many of them were made by the Mexicans shortly before they were destroyed. The most celebrated of these was in the possession of Siguency y Gongora, professor of mathematics in the university of Mexico in 1698. Although the original is lost, a genuine copy remains, of which Humboldt gives a description. It commences with the deluge of Coxcox, or the fourth destruction of the world according to the Aztec cosmogony. Coxcox and his wife having been saved from drowning, the gift of speech was bestowed on their descendants, and fifteen families arrived in Mexico. Another Mexican author, who wrote shortly after the conquest, divides

the history of the world into four great parts:—The age of giants, which lasted 5,206 years; the age of fire, 4,804 years; the age of winds, 4,010; and the age of water, 4,008 years. The Mexican paintings were executed on skins, cotton cloth, and the leaves of the maguey or agave. When the Spaniards arrived in Mexico, civilization had so far advanced, that, amongst the Aztecs, the right of private property was understood, cities were built, professions and distinctions of rank existed, the arts were cultivated with considerable success, &c. The *teocallis*, or pyramids, are amongst the most remarkable objects of Mexican architecture. The pyramid of Cholula is 177 feet high, and comprises a square of 1,440 feet. It is built of unburnt bricks and clay, and is supposed to have been built by the Toltecs, who preceded the Aztecs. The object of these pyramids is unknown; they are generally truncated, and the larger ones are often surrounded by a number of smaller ones, which are supposed to have been tombs. In the cathedral at Mexico is fixed a circular stone, marked with hieroglyphical figures, by which the Aztecs denoted the months. Not far from it is a stone altar, where human sacrifices were offered up. A large idol is also preserved in the Dominican convent, representing a huge serpent devouring a human being. The pyramids of Papantla, near Vera Cruz, are built of large masses of porphyry, and some remarkable antiquities have been of late years discovered at Yucatan.

MEZZO, *met'-zo*.—Literally, half, middle; generally employed in conjunction with some other word; as *mezzo-forte*, moderately loud; *mezzo-piano*, rather soft; *mezzo-soprano*, the middle species of female voice. The *C* clef, when placed on the second line of the staff, in order to accommodate the mezzo-soprano voice, is termed the *mezzo-soprano* clef.

MEZZOTINTO. (See ENGRAVING.)

MI, *mi*.—The syllable applied by Guido to the third note of his hexachords. It is expressed in the natural hexachord by the letter E, and is the third note of the major scale.

MICROCOSM, or **MACROCOSM**, *mi'-kro-koz'm* (Gr., *mikros*, small; and *kosmos*, world), denotes, literally, a small or little world, and is a term often metaphorically applied to man. Astrologers used to maintain that the organization of man accurately corresponded to the organization of the universe, which they called the macrocosm (Gr., *makros*, great, and *kosmos*). The different parts and limbs of man were made to correspond to the different parts of the universe, and engravings are to be found in which man is represented as standing in the centre of the universe, surrounded by lines indicating the various connections of the heavenly bodies with his limbs.

MIDDLE AGES, *mid'-dl*.—That period in the history of Europe which begins with the breaking up of the Roman empire, and is considered to end with the Reformation, the discovery of America, or the invention of printing. According to Hallam, who has written a history of this period, it extends from the invasion of France by Clovis, A.D. 486, to that of Naples by Charles VIII., 1495. In any case, it comprises a period of about ten centuries. In general, it was that period in the history of Europe in which the feudal system was established and developed,

down to the most prominent events which led to its overthrow. The first centuries of this period are often called the Dark Ages, a name not inappropriate when we consider the condition of the barbarous tribes by whom the Roman institutions were overthrown. The revival of literature and the rise of a powerful and wealthy middle class, tended, even before the invention of the art of printing, to the decay of the feudal system and to herald the approach of the Reformation which, by pretty general concurrence, brought the period of the Middle Ages to a close, and commenced a new epoch.

MIDWIFE, *mid'-wife* (Ang.-Sax., *medwif*, a woman hired for mede or reward).—A woman who assists in child-birth.

Midwifery, that branch of medical science dealing with child-birth.

MIMES, *mymes*.—Certain dramatic performances given by the ancients, in which scenes of actual life were represented with but little attempt at art or dialogue.

MINARET, *min-a-ret'* (Arab., *menarah*, a lantern).—A slender and lofty turret, with one or more projecting balconies around it, which divide it externally into several stories. In Mohammedan countries, the minaret is used for the purpose of calling the people to prayers. Generally, however, they are more numerous than this purpose requires; there being usually one at each angle of the building, and sometimes a greater number. By this means they become highly characteristic features of the architecture, not only on account of their frequency, but also from their tall, graceful, column-like shape, which contrasts well with the cupolas which generally crown the edifices. The exterior carving of some of the minarets in India, such as that in the mosque at Ahmedabad, is profuse in its splendour; but the outline of the Saracenic examples is usually more picturesque.

MINIATURE, *min'-e-a-ture* (Fr., a picture or a representation of nature on a very small scale).—In the ordinary acceptation of the term, the word miniature includes two widely different kinds of painting. Of these, one is that ornamental painting or illuminating which is seen in its highest perfection in medieval Bibles, psalters, missals, and other costly manuscripts on vellum; the other kind is that of minute or diminutive portraits generally painted on ivory, to which, in popular language, the word has been confined exclusively in late years. The first kind of miniature is of very ancient origin; they are to be seen among the hieroglyphics of the Egyptians. The books of the ancient Romans were often decorated with small paintings in a costly style. The oldest existing manuscripts with miniatures are Byzantine, and of the latter part of the 4th or beginning of the 5th century. The manner of the Byzantine miniatures was closely imitated in the Italian monasteries as late as the 13th century; but early in the 15th century the works produced by the Italian monks assumed a higher place than those of their Greek masters. The earliest school of miniature-painters in the west of Europe seems to have been that founded at Finian, in Ireland, in the first half of the 6th century, by St. Columba. There is great diversity in the miniature-painting of different ages and countries, not only in style, but in the methods of execution. They were generally

painted on vellum or paper, with colours very finely levigated and rendered opaque by being— for the shadows as well as the lights—mixed with white; the usual vehicle being gum, glue, or white of egg. Gold was also freely used, gold backgrounds being frequent at most periods. The second class of *miniatures* includes the small portraits painted either for decorative purposes or to place in cabinets, lockets, or brooches. Ivory was adopted for this purpose at an early date; it was found to form a more suitable ground than vellum for independent works, and its adoption led to a change in the technical processes. The ivory required for miniatures is cut into very thin sheets, and when mounted is backed up with some very white material. The painting is executed in water-colours, and the flesh-tints and other parts requiring great delicacy of finish are entirely dotted, stippled, or hatched upon the surface. Art in miniature-painting has been successfully prosecuted in England. One of the first was Nicholas Hilliard, limner to Queen Elizabeth; and this country has always taken its stand above the continental nations in its miniatures. In late years, however, the art seems to have entirely succumbed before the rapid advance of photography.

MINIM, *min'-im*.—A character or note employed in Music, equal in duration to half a semi-breve, or two crotchets.

MINION, *min'-yon* (Fr., *mignon*), is an insignificant or low dependent, a favourite on whom benefits are undeservedly lavished.

MINNESINGERS, *min'-ne-sing'-erz* (Ger., *Minne*, love; and *Sänger*, singers).—A school of German poets which sprang into existence in the latter half of the 12th century, and flourished until near the close of the 13th. Their themes were amatory and heroic, and were treated in much the same style as those of the troubadours of Provence, though in a more earnest spirit. (See GERMAN LANGUAGE AND LITERATURE.)

MINOR.—The opposite to *major*, a term used in Music to distinguish the mode or key that takes a minor third, as well as to designate all the diatonic intervals, more especially the *third*, which comprises a tone and a semitone (A—C), while the major third consists of two whole tones (C—E).

MINSTREL, *min'-strel* (Fr., *ménéstral*).—A term introduced into this country by the Normans, and applied to a class of men who gained a livelihood by poetry and music, singing to the harp their own verses, or the popular ballads and metrical histories of the time. They sometimes accompanied their music with mimicry and acting; so that they were often called *mimi*, *histriones*, *joculatores*. They were everywhere held in the highest estimation, being welcomed and caressed by all classes of society, and no great entertainment was considered complete which was not enlivened by their talents. From the Conquest downwards, for many ages in England, the profession of the minstrel was a popular and privileged one. Numerous instances occur in the early history of England showing the esteem in which they were held even by royalty itself, and they were often more amply paid than the clergy. "In the year 1441," says Warton, "eight priests were hired in Coventry to assist in celebrating a yearly orbit in the church of the neighbouring

priory of Maxtoke; as were six minstrels called *mimi*, belonging to the family of Lord Clinton, who lived in the adjoining castle of Maxtoke, to sing, harp, and play in the hall of the monastery during the extraordinary refection allowed to the monks on that anniversary. Two shillings were given to the priests and four to the minstrels, and the latter are said to have supped in *camerd picta*, or the painted chamber of the convent, with the sub-prior; on which occasion the chamberlain furnished eight massy tapers of wax." As learning and culture began to prevail, the high admiration in which this class of persons was held began to subside; poetry was cultivated more by men of letters, and the poet and minstrel became two distinct persons. So late as the reign of Henry VIII. these reciters of verses found free access into all companies, the mansion of the noble as well as the village tavern. But they were gradually sinking into contempt; and in the reign of Elizabeth so singular a phenomenon had a veritable minstrel become, that when one of these ancient singers made his appearance at Kenilworth Castle, in 1575, before the queen, he excited so much interest that old Laneham has given a minute description of his person and dress in his "Princely Pleasures of Kenilworth." Towards the end of the 16th century this class of persons had lost all credit, and by an Act passed in the thirty-ninth year of Elizabeth they are classed with rogues, vagabonds, and sturdy beggars, and adjudged to be punished as such. In the present day a minstrel is merely a musician, a player upon some instrument.

MINUET, *min-u-et'* (Sp., *minuete*).—A slow, graceful dance, consisting of a *coupé*, a high step and a balance, supposed to have been originated in Poitou about the middle of the 17th century. A movement of three crotchets or three quavers in a bar is also called a minuet.

MIRACLE-PLAYS.—A kind of religious drama which prevailed during the Middle Ages. These plays were originally intended to instruct the people in the history of the Bible, legends of saints, &c., &c., and were performed by the clergy in the churches, but they speedily degenerated into irreverent buffoonery. (See MORALITIES.)

MIRZA, *mir'-za*.—A title of honour among the Persians, a contraction of Emir Zadah, "son of the prince." In ordinary cases, it is used as a prefix to the proper name; when affixed, it designates a male of the blood royal.

MISANTHROPY, *mis-un'-thro-pe* (Greek, *misos*, hatred; and *anthropos*, a man).—A general dislike or aversion to man or mankind. It is thus opposed to philanthropy, or a general love of mankind.

MISCELLANY, *mis-sel'-la-ne* (Lat., *misceo*, I mix).—A mixture or medley of things of various kinds or sorts. In Literature, it is applied to a collection of works, or treatises of various kinds, as Constable's *miscellany*, Chambers's *miscellany*.

MISERERE, *mis-e-ré-re* (Lat., have mercy).—In Ecclesiastical Architecture, a projection on the under side of the seats of the stalls in churches of the Middle Ages. They formed folding seats on which aged and infirm priests were allowed to rest.

MISERICORDE, *mis-er-e-kor'-de* (French).—The name of a dagger used by the knights in the Middle Ages; so called, according to some,

because used to put persons out of pain who were mortally wounded; according to others, because the sight of it caused the vanquished to cry for mercy.

MISSA DI VOCE, *mis'-sa devo'-tchai*.—In Music, the gradual swelling and diminution of the sound of the voice on a note of long duration.

MITRAILLEUR, or **MITRAILLEUSE**, *mit'-rail-yeur'*, *mitrail-yeuze'*.—A modern invention of warfare, designed to discharge a vast number of rifle bullets with great rapidity and accuracy. For this purpose machinery was brought into play; a number of rifles were bound together, and fitted with a common breech action, so that they could be loaded and discharged simultaneously. It was used in the Franco-German war; and the Gatling gun, in use in the British Navy, is an adaptation of the principle.

MITRE, *mi'-tr* (Gr., *mitra*).—A sacerdotal ornament worn on the head by archbishops and bishops in the Roman Catholic and Greek Churches, and also by abbots of certain orders. It consists of a stiff cleft cap rising in two points, one before and the other behind, and having two ribbon-like pendants, which fall upon the shoulders. The Pope's mitre is of a peculiar formation. (See **TIARA**.) Cardinals wore mitres previous to the Council of Lyons in 1245, when they were directed to wear hats. (See **CARDINAL**.) The high priests among the Jews wore mitres; and we find similar head ornaments among various nations of antiquity. Bacchus was often represented with a mitre; whence the Greeks styled him *mitrophoros*. It is much disputed whether mitres were worn in the early ages of the Church.

In Heraldry, a mitre is placed on the shield of a bishop instead of a crest; the Archbishops of Canterbury and York encircling it with a ducal coronet. In Germany, the mitre is sometimes worn as a crest, to indicate that those who so bear it were formerly feudatories of ancient abbeys.

MNEMONICS, or **MNEMOTECHNY**, *ne-mon'-iks ne-mo-tek'-ne* (Gr., *mneme*, memory, and *techné*, art).—The art of improving the memory by artificial means. According to the account of the ancients, the discoverer of this art was Simonides, the poet, who flourished about B.C. 500; the story being that during his temporary absence from a feast, the house in which they were assembled fell, killing all that were present, and mutilating their bodies so that they could not be recognized; but Simonides, recollecting the place that each had occupied at the feast, was able to distinguish them. His attention is said to have been thus directed to the important aid afforded to memory by the observation of material objects. This art was recommended by Cicero, Quintilian, and others of antiquity; and in more recent time many systems have been introduced. In 1618, Willis's "Mnemonica" was published; and in 1730, Dr. Grey published "Mnemonica Technica." One of the most prominent of modern writers on the subject was Major Beniowski, who published a "Handbook Phrenotypics." The value of any system of mnemonics must necessarily depend upon the extent to which it is based upon the principles and laws of memory. (See **MEMORY**.) Ideas recall or reproduce each other in the mind according to certain laws, known as the laws of association. (See **ASSOCIATION OF IDEAS**.) Pro-

fessors of mnemonics associate with some material object those ideas which they wish to remember. A person wishing to remember the heads or principal points of a discourse, would connect each of them in his mind with some object before him, so that the sight of the object would immediately recall the idea connected with it. In carrying out this principle, the system now generally adopted is to have a series of rooms, each so divided in the imagination as at present fifty places. Thus, in the first room, the front wall (*i.e.*, that opposite the entrance) is divided into nine equal parts, or squares, three in a row, for containing the units; the right-hand wall the tens, left the twenties, fourth wall the thirties, and the floor, similarly divided, the forties. The Nos. 10, 20, 30, and 40 are placed in the roof above the four walls, while 50 stands in the centre. Other rooms are divided in the same way to the number required. The learner has then to fix the different places accurately in his mind, so that on a number being given he may at once be able to recollect its place. When he has mastered this, he has then to associate each place with some familiar object; so that, on the object being suggested to his mind, its place may be recalled, or when the place is before the mind, the object may spring up. Of course, any objects will do, provided they are familiar and easily recalled. As a general rule, the more closely two ideas are brought together in the mind the more strongly will they be associated, and the greater their power of reproducing one another. Hence, promixity is another principle available in mnemonics, it being said that "the rapidity and strength with which two given notions stick together is in the inverse ratio of their phrenotypic distance," *i.e.*, the time that elapses between the two notions acting upon the brain. In remembering dates or sums, the way is to substitute letters for figures and form them into words, for the sake of euphony, the vowels being of no value. Thus, $t=1$; $n=2$; $m=3$; $r=4$; $l=5$; $d=6$; $c, k, g, q=7$; $b, h, v, w=8$; $p, f=9$; $s, x, z=0$.

MOAT, *moat*.—A ditch round the ramparts of a fortress, or a house, intended as a protection against attack. In this country, many old country houses, with moats, remain.

MODE, *mode* (Fr., from Lat., *modus*, manner).—In Music, the melodious arrangement of the octave, which consists of seven essential natural sounds besides the key or fundamental. There are two modes only in modern music—the major and the minor. The major mode is that by which the intervals between the second and third, and fifth and sixth, become half-tones, and all the others whole ones. In the minor mode, the intervals between the second and third, and fifth and sixth, become half-tones. Between these two modes there is also another distinction—the major being precisely the same whether ascending or descending, while the minor, in ascending, sharpens the sixth and seventh, thus removing the half-tone between the fifth and sixth to between the seventh and eighth. In the Gregorian Chant there are eight modes (or, as we should now call them, keys), four of which are now called authentic and four plagal. (See **GREGORIAN CHANT**.)

MODELLING, *mod'-el-ling* (from French, *modeler*, to model).—A term used in the Fine Arts, and applied to the art of forming a design

in clay, or of making a mould from which works in plaster are to be cast. Modelling is essentially a practical art, and depends greatly upon the experience and artistic skill of the modeller. It is mostly executed with the fingers; and the tools employed are generally made of wood and wire, and so constructed as to be able to do what the fingers cannot perform. Wire tools are most effective in working upon concave surfaces, such as the narrow folds of draperies. The wooden tools employed are of various shapes, and are composed of box and ebony. The wooden tools used in fine modelling are usually kept steeped in oil, as, by that means, the clay is less liable to adhere to them. Common potter's clay of the best quality is the clay used in modelling; but sculptors generally add a little finely pulverized sandstone, which makes the clay work more freely. After the model is complete, the cast is taken from which the marble is sculptured or other casts made. The whole model, while wet, must be covered with three or four masses, or more if necessary, of plaster of Paris. When fixed and dry, the whole may be separated at the joints; and when the component parts are placed again together, the place of the original model is filled with plaster of Paris; and when the cast is well set, the mould can be carefully broken off in fragments. The cast is then exposed complete and finished. In making small models for bronzes, the ancients used wax, which is still the modelling material used by goldsmiths and medallists. It is prepared by melting virgin wax with a small quantity of Venice turpentine and flake-white in fine powder. When coloured wax is required, a colour in fine powder must be substituted for flake-white. The tools employed are made of wood and ivory, and are similar in shape to those used in modelling in clay.

MODERN, *mod'-ern* (Fr., *moderne*, a corruption of Latin *hodiernus*).—A term applied to what belongs to recent times. It is used in different senses. It is frequently used in contradistinction to ancient or classical; as, modern philosophy, modern languages. Modern authors are said to be those who have written since Boethius; modern philosophy to have commenced with Galileo, and modern astronomy with Copernicus. Modern history is sometimes applied to the whole period from the destruction of the Roman empire down to the present time; at other times, the term Middle Ages or Mediæval history (see MIDDLE AGES) is applied to the earlier portion of this period, and the term modern only to the later. The Germans often date the end of modern history with the French Revolution, and call the subsequent period "most recent history." Shakespeare uses the term for vulgar or common. As a substantive, it is chiefly used in the plural, for those who live, or have lived, in recent or modern times. To modernize is to adapt something ancient to modern form or usage.

MODILLION, *mo-dil'-le-on*.—An ornamental bracket employed in classic architecture, generally in combination with cornices in the Corinthian and Composite styles.

MODULATION, *mod-u-lai'-shun* (Lat., *modulatio*, forming anything to a certain proportion).—In Music, that portion of the harmonic science which teaches the perfect lawful transitions of harmony or melody from key to key, and from one combination to another.

MODUS OPERANDI, *op-e-ran'-di*, is a Latin term, denoting the manner of operating.

MONDAY, *mun'-dai* (Sax., *monandæg*; Ger., *montag*; Lat., *luna dies*; Fr., *lundi*), is the name of the second day of our week; so called from being formerly regarded as sacred to the moon.

MONITEUR, LE, *mon-e-tuhr'* (Fr.).—One of the most celebrated of the French newspapers. It was commenced by Charles Joseph Panckoucke at Paris on 5th May, 1789, under the title of *Gazette Nationale, ou Le Moniteur Universel*. At first it was a simple gazette, without any official character; but on the 7th Nivose, of the year VIII. (1799), it was declared an official organ, and it still continues to be the official organ of the French Government. After 1811, it dropped the title *Gazette Nationale*, and retained only that of *Moniteur Universel*. It was the Government organ under Louis Philippe and Napoleon III. In February, 1871, it was superseded by the *Journal Officiel*; but in 1875 was selected as the organ of the government of President MacMahon.

MONITORS AND MONITORIAL SYSTEM OF TUITION.—Advanced boys in a school who instruct younger pupils. This system was first introduced by Dr. Bell at the Orphan Hospital at Madras; it was also largely carried on by Joseph Lancaster, who did much to spread education in the early years of this century.

MONOCHORD, *mon'-o-kord* (Gr., *monos*, sole; *chordos*, cord).—An instrument consisting of a single string (hence its name) stretched over two bridges, standing one at each end of a graduated scale, employed to measure the variety and proportions of musical sounds.

MONOGRAM, *mon'-o-gram* (Gr., *monos*, single, and *gramma*, letter), is a character or cipher composed of one, two, or more letters woven together. They were very common in antiquity, on coins, standards, &c. Monograms composed of the initials of a name are now in general use for note-paper, lockets, and other purposes, and much taste is displayed in the ornamental combination of initials. (See CIPHER.)

MONOGRAPH, *mon'-o-graf* (Gr., *monos*, and *graphé*, writing), is a treatise on a single subject in literature or science; as a monograph on mummies, a monograph on roses. The advantage of a treatise of this sort is, that it allows more minuteness of detail in reference to all the properties and relations of the subject.

MONOLITHIC, *mon-o-lith'-ik* (Gr., *monos*, and *lithos*, a stone), denotes something composed of a single stone. In Egypt, some striking specimens of monolithic obelisks and monolithic temples are still to be seen. According to Herodotus, there was a monolithic sanctuary attached to a temple at Sais, 21 cubits long, 14 wide, and 8 high, brought from Elephantine, the carriage of which employed 2,000 men for three years.

MONOLOGUE, *mon'-o-log* (Gr., *monos*, and *logos*, discourse).—In the Drama, is a part in which a person speaks by himself, or soliloquizes, as distinguished from a dialogue, in which two persons speak.

MONOPETRAL, *mon-o-pe'-tral*.—A term applied to a building which has an open circle of columns supporting a roof.

MONSEIGNEUR, *mon(g)-sain'-yhur* (Fr., *mon*, my, and *seigneur*, lord).—A French title, originally applied to saints, but subsequently to princes, nobles, and certain high dignitaries of the Church. The Italian Monsignore has a similar signification.

MONSIEUR, *mos'-yeu* (Fr., *mon*, my, and *seur*, sir).—A French title of civility, applied to persons of every rank or condition, corresponding to the English Mr. or Sir. By the earlier English writers, it was applied in a contemptuous sense to Frenchmen. Under the monarchy, it was given, with the addition of the name, to the king's eldest brother. The plural is Messieurs.

MONSTER, or **MONSTROSITY**, *mon'-ster* (Lat., *monstrum*).—A term applied to any creature or plant whose formation deviates in some remarkable way from the usual formation of its kind. (See DEFORMITY, TERATOLOGY.)

MONTEM, or **MONTEM CUSTOM**, *mon'-tem*.—A custom formerly celebrated triennially at Eton School on Whit-Tuesday. The scholars marched in procession with flags and music to a mount (Lat., *ad montem*) near the Bath Road, known as the Salt Hill. Contributions, or "salt," as it was termed, were there levied from the passers-by and spectators; and as many of the nobility, and sometimes even royalty, were present on such occasions, the sum collected has sometimes amounted to £800 or £1,000. After deducting certain expenses, the sum went to the senior boy, or captain, of the school, for his support at the university. This custom was at length abolished in 1847, on the representation of the master of the school to government, that its celebration was attended with certain inconveniences, though the measure was vigorously opposed by many influential persons.

MONTH, *month* (Sax., *mona*, the moon).—Originally the period of time which the moon takes to revolve round the earth. This mode of reckoning time was used by the Chaldeans and Egyptians, and is so still by the Jews and Turks and also many uncivilized nations.

Calendar Month, or Civil Month.—These are distinct from all others, and are fixed by law for ordinary purposes. They are founded on the solar month, being to some extent a twelfth part of the solar year. They consist of 30 or 31 days, except February, which has 28, and 29 each leap year. (See CALENDAR.)

MONUMENT, *mon'-u-ment* (Lat., *monumentum*).—In its widest sense, everything by which the memory of a person or event is perpetuated. The monuments of antiquity include the writings as well as the productions of the fine and useful arts of the ancients; for all these serve to illustrate the manners, customs, and institutions of the people; but the term is most generally understood of those productions of sculpture and architecture intended to transmit to posterity the memory of remarkable persons or events. In all ages, and among almost every people, we find the use of monuments, from the first rude attempts of art to its greatest perfection. The oldest monuments known to us are the obelisks and pyramids of Egypt; but no ancient country abounded with so many monuments as Greece, where they were erected in honour of victors in battle, in the Isthmian and Olympic games, and other distinguished persons. Among the Romans also monuments were common, and to them we are indebted for originating one species—the

triumphal arch. The Greeks and Romans were also wont to erect monuments to deceased persons, either over their ashes, or in some public place. The rude stone so used was by degrees converted into the noble pillar; and at length small buildings, in the form of temples, followed; whence we have our modern mausoleums. At first, among Christians, the usual device upon monuments for the dead was a figure of the cross. Afterwards, it became common to indicate by some sign the profession of him whose dust they honoured; as a crozier and mitre upon the tomb of a bishop; a sword and shield on that of a knight. By-and-bye the human figure was added, recumbent, and arrayed in the dress of the deceased; so that from these venerable remains the antiquary gathers a knowledge of the costumes of the period. The lion or the serpent is frequently found at the foot of the recumbent figure; probably to symbolize the treading on the lion and dragon referred to in Scripture. It was also early the practice to introduce religious allegories of various kinds, indicating the victory of the cross over the devil. Angels were frequently introduced, supporting the dying figure, or conveying the soul into bliss.

MONUMENTAL BRASSES. (See BRASSES, MONUMENTAL.)

MOORS, *moorz* (Lat., *Mauri*; Sp., *Moros*).—The name by which the Arab conquerors of Spain are known in Europe, on account of their having come from Mauritania, or Morocco. In the 7th century the Arabs conquered the latter country, and converted the people to Mohammedanism. The conquerors and the conquered amalgamated together, and in 711 an army of this mixed population, under Arab leaders, crossed at the Straits of Gibraltar, and began the conquest of the Spanish peninsula. This they speedily effected, with the exception of the mountainous districts of Asturias and Galicia. When almost the whole of the rest of Europe was sunk in ignorance and barbarism, learning and the arts flourished among the Moors in Spain, where some remarkable monuments of their labours are still to be seen. About the middle of the 11th century, many of the local governors threw off their allegiance and established themselves as independent potentates. The wars that followed so weakened the power of the Moors that the Christians rose against them under Alfonso "the Battler," and took Castile with its capital, Toledo. Their progress was for a time checked; but subsequently they continued to extend their conquests till the power of the Moors was restricted to the kingdom of Granada, and in 1238 the king of that territory became the vassal of Ferdinand III., king of Castile. At length, in 1491, Ferdinand V., king of Castile and Aragon, after a ten years' war, conquered this also, and put an end to the dominion of the Moors in Spain, after it had lasted nearly 800 years. A portion of the Moors then returned to Africa; but most of them remained in Spain, where they became peaceful and industrious subjects, and adopted generally the external forms of Christianity. Philip II., however, in his mad zeal for Christianity, resolved upon their entire destruction, and by his oppressions and cruelties drove them into insurrection, in Granada (1571), after the suppression of which, over 100,000 of them were banished. Their expulsion from the country

was completed by Philip III. ; and this has been regarded as one of the leading causes of the subsequent decline of Spain; for they were ingenious and industrious inhabitants, and after their departure, agriculture, trade, and manufacture fell into decay. The term Moor is frequently used in a very loose sense, particularly by Spanish writers, denoting sometimes the Mohammedan inhabitants of Northern Africa, and sometimes even the whole Mohammedan or Moslem race. Even the Turks, who, in descent, language, and everything but religion, are foreign and alien to both Moors and Arabs, are sometimes spoken of as Moors.

MORALITIES, MIRACLE PLAYS, OR MYSTERIES, *mo-ral-i-teez*.—Terms applied to the religious and allegorical plays which constituted the Drama in the Middle Ages. Though, as generally used, the terms are synonymous, the Miracles, properly so called, were the earliest form, and represented either subjects of Scripture, or legends of the lives of saints. The Moralities appear later, and were allegorical representations of virtues or vices, so contrived as to make virtue always desirable and vice ridiculous and deformed. The Mysteries were usually more elaborate and lengthened performances, representing some of the sacred mysteries of Christianity, particularly in the life of Christ.

History.—The early fathers of the Church were much opposed to the drama; but, probably finding their efforts against it unsuccessful, about the 4th century, Apollinaris, Bishop of Laodicea, and others, wrote plays adapted for the stage on some of the great events of Scripture. Nothing farther is known of them till about the 11th century, when Theophylact of Constantinople introduced certain Christian plays to attract the people from the pagan revels that were then common. These were not only composed by ecclesiastics, but were also acted by them, usually in churches and the chapels of monasteries. They were afterwards exhibited by trading companies, each guild sharing the expense, and undertaking a portion of the performance, and they were performed for the purpose of amusing the people on public occasions and festivals. The earliest of these mysteries belong to the 12th century; Chester and Coventry in England were particularly celebrated for the performance of them. The Chester mysteries have been published by Wright, and the Coventry mysteries by Halliwell. The Townley mysteries, so named from the family having possession of the MSS., and supposed to have been written and performed by the Augustinian friars of Woodkirk, have been published by the Surtees Society (London, 1836). In these mysteries they represented not only men, angels, and devils, but even the persons of the Trinity. Heaven, hell, the creation and consummation of all things, were vividly presented to the eyes of the spectators. According to Malone, the last mystery performed in England was that of Christ's Passion, in the reign of James I. They are still occasionally performed in some parts of the continent, particularly at Ober Ammergau, in Bavaria, where they are celebrated every ten years, in consequence, it is said, of a vow made by the inhabitants of that place in 1632, on their deliverance from a plague which then prevailed in the district. This *Passions-Spiel* represents the entire history of Christ from His entry into Jerusalem to His appearance to Mary Magdalene after the resurrection.

MORESQUE. (See *ARABESQUE*)

MORGANA, FATA. (See *FATA MORGANA*.)

MORGUE, LA, *morg, la* (Fr.).—The name given to a place in Paris and other French towns, where the bodies of unknown persons who have perished by accident, murder, or suicide, are exposed, that they may be recognized and owned by their friends. The clothes in which the deceased are found are hung near the body. In Paris, each body is placed upon a slab of black

marble, and the corpses may be publicly seen through a glazed partition. This spectacle, although extremely repulsive, is largely patronized by British visitors. If the bodies exposed at the morgue are not claimed after remaining three days, they are buried.

MORION, *mo'-ri-on*.—A helmet made of iron or steel, and worn by men-at-arms in mediæval times. It differed from the helmets of knights and squires by having no visor or bearer to protect the face.

MORRIS, OR MORRICE DANCE, *mor'-ris*.—A peculiar kind of dance, supposed to have been originated by the Moors, in which bells were fastened to the feet of the performers. The great art consisted in so moving the feet as to produce something like concord from the tones of the bells. The English are said to have derived it from the Spaniards, who had previously received it from the Moors. Some writers say the morris dance was introduced into England by Edward III. ; but few, if any, traces of it can be found before the time of Henry VIII. The dance is still continually practised in Spain under the name of *fandango*.

MORTAR, *mor'-tar*.—A variety of short cannon of a large bore, with chambers, employed to throw shells or carcasses at considerable elevations, so that the missile may range to a great distance, and fall vertically upon the object fired at. Mortars were first used in sieges for throwing large balls of stone and of red-hot iron, before the invention of shells. In consequence of this, the calibre of a mortar in Germany is estimated by the weight of a stone ball, equal in bulk to the size of the bomb which it is intended to throw. In Russia and Denmark, the calibre of a mortar is estimated by the weight of an iron ball exactly fitting it; and in England and France by its diameter in inches. The calibres of mortars in the English service are 4½, 5½, 8, 10, and 13 inches. All these different kinds of mortars are used on land; the two last being also employed in the navy. In the latter service, however, the pieces are about 16 inches longer than the land-service pieces of the same calibre; they are also much heavier—the land-service 13-inch mortar weighs 36 cwt., and the sea-service 101 cwt. The interior parts of a mortar are the chamber, the bore, the mouth, and the vent. The chamber is the place where the charge of powder is lodged. The shape of the chamber varies, but it is generally conical, and more or less truncated. The use of mortars is considered to be older than that of cannon by some writers, but rifled cannon are now rapidly taking their place. Shells were thrown out of mortars at the siege of Wachtendonk, in 1588, by the Count of Mansfeld. (See *BOMB, GUN*.)

Mortar Vessel.—For a considerable period this term was applied to small vessels armed with mortars for the purpose of bombarding. The increased use of shells in naval warfare, to be fired from ordinary guns, converts every vessel of war into a bomb-vessel; consequently, the term mortar-vessel will not long designate any particular kind of boat. In ordinary language, the term is applied, in the navy, to a few small craft of light draught of water. It is probable that the term mortar-vessel will merge into that of gunboat. (See *GUNBOAT*.)

MOSAIC GOLD. (See *AURUM MUSIVUM*.)

MOSAIC WORK, *mo-zai'-ik* (Fr., *mosaïque*), is a species of inlaid work, by which a design is produced by joining together small surfaces of

variously-coloured substances. Work of this kind is of great antiquity, and it is believed to have had its origin in Asia. In the book of Esther, mention is made of a "pavement of red and blue, and white and black marble," in the court of the garden of King Ahasuerus; this was without doubt a pavement of mosaic work. In Greece, during the time of Alexander, mosaic pavements made with variously-coloured marble were amongst the sumptuous decorations of the period. These were for the most part geometric in design; but Pliny mentions a celebrated work of Sosos of Pergamos—the "Unswept Hall;" this was a pavement of inlaid work, representing the crumbs and fragments left on the floor after a banquet. The art was carried from Greece by workmen to Rome, where it was called *opus musivum*, and acquired universal popularity, and soon came to be applied, not only to floors, but also to walls and ceilings. In Italy, and in most of the countries occupied by the Romans, many floors ornamented with mosaic work have been found amongst old ruins. They consist generally of a centre-piece, frequently of human beings or animals, with a border or frame of a regular pattern. The different parts of which the mosaic is formed consist of cubes of different-coloured stones, or earthenware, cemented together. Some exquisite specimens of this kind of mosaic work have been found at Pompeii. One of the finest examples found is supposed to represent the battle of Issus, and was found in 1831 in the Casa del Fauno. In the 5th century, when the arts and sciences were driven from Italy, the art of mosaic work was preserved by the Byzantine Greeks, and was restored to Greece in the 13th century. It attained its highest perfection at the beginning of the 17th century, when Clement VIII. had the whole of the interior of the dome of St. Peter's ornamented with mosaic work. Giambattista Calandra improved mosaic by the introduction of a new cement. He and other artists who followed after him employed the art for copying original paintings by celebrated artists. One of the great advantages of this kind of work is its wonderful power of preservation, by which many of these paintings are represented in all their original freshness and beauty. Guercino's "Martyrdom of St. Petronilla," and Domenichino's "Communion of the Dying St. Jerome" were thus preserved. A school for mosaic was founded at the beginning of the 18th century in Rome, by Peter Paul of Christophris, and many of his pupils carried the art to a high degree of excellence. In modern times, two kinds of mosaic are particularly famous—the Roman and the Florentine. In Roman mosaic, the pictures are formed by joining very small pieces of stone, which gives greater variety, and facilitates the representation of large paintings. In the Florentine style, the mosaic is made of large pieces of stone, and is consequently more troublesome, and only adapted for small paintings. The Italians call mosaic work in wood *tarsia* or *tarsia*; the French, *marqueterie*. (See MARQUETRY.) In the most costly mosaics, precious stones have been cut to furnish materials; but in common works of this art, enamels of different colours, manufactured for the purpose, are the materials employed.

MOSQUE, *mosk* (Arab., *mesjid*, place of prayer).—The term applied to a Mohammedan temple or place of worship. They are generally

distinguished externally by cupolas and minarets, but internally they are little remarkable, forming merely a single hall or apartment, with numerous lamps, the floor covered with carpets, and the walls with arabesques and mosaics. The principal Arabian and Syrian mosques are remarkable for their vast quadrangles, surrounded with numerous columns. The revenues of the mosques are often considerable, and connected with them are usually institutions for education, hospitals for the sick, asylums for the poor, &c. The principal mosque of Constantinople was originally the Christian Church of St. Sophia, built by the emperor Justinian in the 6th century; but it is surpassed in beauty and taste by that of Solymán the Magnificent, begun in 1550. The mosque of the prophet at Medina, the great mosque at Mecca, and the mosque of Omar at Jerusalem, are considered peculiarly holy, and are amongst the finest extant specimens of Moslem architecture.

MOSS TROOPERS.—The warlike plunderers who inhabited the borders of England and Scotland, and are said to have been so called from living in the mosses or morasses, and riding in troops together. After the union of the two crowns they gradually disappeared. (See BORDER, THE.)

MOTET, *mo-tet'* (Fr.).—A term formerly applied to certain elaborate vocal compositions in several parts, generally on sacred subjects; in fact, any sacred composition which does not come under the denomination of *mass* or *anthem* may be called a motet. The Latin psalms and hymns sung in the Roman Church are so called.

MOTTO, *mot-to* (Ital.).—An Italian term, used to signify a word or sentence added to a device, and commonly used when put on a scroll, as an external ornament of coat armour. The use of mottoes for this purpose is very ancient, and when appended to a coat-of-arms, a motto is frequently hereditary in a family. Strictly speaking, the motto should bear an allusion to something in the achievement; but in modern times the taking of it entirely depends upon the pleasure of the bearer, and it may be changed at will. The term motto is also applied to a sentence or quotation prefixed to anything written or published.

MOULDINGS.—The ornamental, raised surfaces used to garnish the cornices of rooms, panels of doors, arches of buildings, &c. Certain peculiarities of form usually prevail at different periods, so that in Gothic architecture, for instance, the date of the building might be told from the form of the mouldings.

MOURNING, *mor'-ning* (Ang.-Sax.).—An outward manifestation of grief, especially in matters of costume, more particularly on occasions of death. Every nation has some conventional form of mourning. The ancient Hebrews rent their garments, tore their hair, smote their breasts, threw ashes on the head, abstained from washing, sat on the ground, and went bare-headed and barefooted. The usual period of mourning was seven days, but for Moses and Aaron they mourned a month. The Greeks withdrew into privacy, cut off their hair, put on black, or in some parts, as in Argos, white garments, rolled themselves on the ground, threw ashes on their heads, tore their clothes, and never appeared in public without a veil. The Roman forms of mourning did not differ greatly

from the Grecian. Hired mourning women were employed at funerals, both by Greeks and Romans. In Europe, the ordinary colour for mourning is black; in China and Japan it is white; in Turkey, blue or violet; in Egypt, yellow; in Ethiopia, brown. The time varies in different countries, from a week to a year, and according to the degree of relationship. In some parts of Ireland hired mourners, generally old women, are famous for their extravagant lamentations. Court mourning in Europe for members of the reigning family, even in remote degrees, is prescribed by ceremonials, which give the minutest directions as to dress. In ordinary English society, etiquette prescribes certain varieties of mourning costume, and of the time of wearing it, according to the relationship of the mourner to the deceased person.

MOVEMENT, *muv'-ment* (Fr., *mouvement*).

—Most musical compositions are divided into several parts, which generally differ from each other in time and key. Each of these divisions is called a movement.

In Military language, any regular or preconcerted change of position for some particular object.

MUCK, RUNNING A.—An expression derived from the Javan word *amok* or *amuk*, to kill, and is applied to that peculiar murderous frenzy that sometimes seizes upon individuals in certain parts of the East, in consequence, it is said, of over-indulgence in opium.

MULLET, or MOLLET.—In Heraldry, a charge in the form of a star of five points, intended to represent the rowel of a spur. It is the mark of cadency, and was assigned to the third son, "the male heir to chivalry."

MULLION, *mul'-yon*.—In Architecture, the upright division between the lights of windows, screens, &c. The mullion frequently supporting tracery is principally used in Gothic architecture of the Early English, Decorated, and Perpendicular styles.

MUMMY, *mum'-me* (Pers. and Arab., *mom*, wax).—A term applied to a body which has undergone the process of embalming. (See **EMBALMING**.) Mummies are principally found near Thebes, and in the plains of Sahara. Few mummies of children have been found. It has been calculated that 420,000,000 mummies were made from the commencement of the Egyptian monarchy to the cessation of the art in the 7th century. The bodies of sacred animals were also embalmed by the Egyptians from an early period of the monarchy; but they did not bestow so much care upon them as upon the human mummies.

MURAL CROWN.—The crown given by the Romans to the soldier who first mounted the walls of a besieged town, and fixed a standard there. In Heraldry it is represented in the form of the top of a circular tower, masoned and embattled. In some coats of arms it supports the crest, especially in the case of distinguished soldiers.

MUSES, *mu'-zez*.—The name of certain goddesses of the Greek mythology, who were supposed to preside over the liberal arts and sciences. In the early Homeric writings only three are mentioned; but Hesiod, in his "Theogony," fixed the number at nine.

MUSETTE, *mu'-zet*.—The name given to a

soft and sweet kind of air in common time, from the style of which dances were often invented and called musettes. This word was also applied as the name of a small kind of bagpipe, much employed in most European countries, and played on by certain itinerant musicians, who were called musars.

MUSEUM, *mu'-ze-um* (Gr., *mouseion*).—Originally a place dedicated to the Muses; hence the term began to be applied to any place where learning was pursued, or which was set apart as a repository for objects which have some relation to the arts and sciences. One of the earliest museums on record was that founded by Ptolemy Philadelphus in 280 B.C., at Alexandria, for the encouragement of learning and the support of learned men. At the present day, every collection of interesting objects of nature or art, brought together for the instruction of the student or the satisfaction of the curious, is called a museum. Collections of this sort in Europe had their origin after the 15th century. The most famous of Italy is the museum of the Vatican, which occupies nearly all the rooms of that vast palace, and includes pictures, statues, *reliefs*, books, and manuscripts. It contains the celebrated fresco paintings of Raffaele, together with the Apollo and Laocoon, and many other grand and beautiful works of art. After the museum of the Vatican, that of Florence holds the second place. Its greatest ornaments are the Medicean Venus and the Farnesian Hercules. The museum of Paris is exceedingly rich in works of art. In France, however, the term *musée* is also applied to galleries of painting. In England, the Ashmolean Museum, at Oxford, is the oldest; but the largest and most important is the British Museum, in London. (See **BRITISH MUSEUM**.) In most of the principal towns of Great Britain, public museums are erected. No country has more museums than Germany. Those of Berlin, Dresden, and Munich are the most celebrated. In Italy, the *Museo Borbonico* contains the treasures found in the buried cities of Pompeii and Herculaneum. In St. Petersburg, Copenhagen, and Greece, there are also museums of an extensive and interesting character.

MUSIC, *mu'-zik* (Lat., *musica*; Fr., *musique*).—One of the seven liberal arts. It teaches the properties, dependencies, and relations of melodious sounds, or the art of producing harmony and melody by the combination and arrangement of those sounds. Music, in common with all other arts, is chiefly derived from the ancients. Of its origin, no certain knowledge can be obtained, nor is it easy to determine what it was in its primitive state. With the ancients the term music possessed a far wider meaning than it does at present. With them it comprehended not only dancing and acting, but even poetry, and, indeed, everything that was practically considered to emanate from the influence of the nine Muses. The first traces of music were discovered in Egypt, where the art was undoubtedly carried to a high degree of perfection, although Diodorus Siculus asserts that it was prohibited, as not only useless but even noxious, from its tendency to make man effeminate; on the other hand, however, we are assured by Plato and Herodotus, both of whom were travellers in Egypt, that the art was greatly encouraged, and the youth instructed in it, at an early age; and Diodorus contradicts himself by telling us in another place that music and musical instruments were the



MIRACLE PLAY OF THE MIDDLE AGES—NOAH'S ARK.

inventions of the Egyptian deities Osiris, Isis, Orus, and Hermes. They are also proved to have possessed instruments capable of much variety and expression, by representations of them that have been found. Of Hebrew music little is known, except what may be gathered from Holy Writ. Jubal, seventh only in descent from Adam, is spoken of as "the father of all such as handle the harp and the organ." The instrument here meant by the organ was, most probably, a number of pipes joined together, resembling the common Pan's pipe, which is known to be of the remotest antiquity. In the time of David, we find music and musical instruments continually spoken of. According to Eusebius, David carried his harp with him wherever he went; he appointed corps of musicians for the celebration of religious ceremonies, and we find him continually mentioned as playing and dancing before the Lord with songs, harps, psalteries, timbrels, cymbals, cornets, and trumpets. The Babylonish captivity, lasting sixty-three years, proved a mortal blow to the Jewish music, and, indeed, all their other arts; and in the stormy time which followed, during which they were conquered successively by the Egyptians, Persians, and Romans, it was entirely lost. Since the destruction of the temple, both instrumental and vocal music have been excluded from all the Jewish synagogues, excepting those of the German Jews, as they consider it improper to sing or rejoice before the coming of the Messiah. Music being held in greater estimation by the Greeks than by most other nations, we might naturally expect that our knowledge of it would be considerable. It is, however, quite the reverse; neither the ancient writings nor the research of modern inquirers give us any idea what the Greek music really was; neither is this very surprising when we consider that the music of a country can be handed down to a remote posterity only by the preservation of actual compositions, expressed by a notation capable not only of expressing the sounds with distinctness at the time, but which will continue to be intelligible in later ages. Now, therefore, as all we possess of Greek music are a few fragments written in a notation which is very far from being understood, we cannot wonder at the small knowledge we have of it as a science, while of its origin and primitive history we can give little else than conjectures, having no more satisfactory accounts than mythological traditions, from which it would seem that the Greeks received their music, or at least great improvements in the execution of it, from Lydia, where Amphion is said to have learned this art, and from Arcadia, where the shepherds practised on the pipe, flute, and cithara. Their different modes, viz., the Phrygian, Dorian, Lydian, Æolian, and Ionian, were derived from various provinces in Asia Minor; hence their names. Most of the ancient philosophers wrote on music, more especially the disciples of Pythagoras, Plato, and Aristotle; from whom we find that music was considered an almost indispensable portion of the education of the highest classes, and that it was employed in their religious ceremonies. The musical scale of the Greeks consisted, at its greatest extent, of only two octaves, the lowest note of which was A, the first space in the bass of modern music, and resembled that of the present day exactly in the disposition of its intervals; but instead of being arranged in octaves, as with us, it was divided into tetrachords. The Greeks are sup-

posed to have possessed no musical rhythm, except in their poetry. Their musical notation was very complicated. Its basis was formed upon the letters of the alphabet, which were multiplied by distorting and mutilating their forms, and by the use of accents, and of arbitrary signs, producing in all above sixteen hundred characters. The question which has been so long contested, as to whether the Greeks possessed any knowledge of counterpoint, or part-music, seems now to be determined in the negative; for although they must, if only by mere accident, have known the effect of simultaneous sounds, it is extremely improbable that what we call harmony formed any part of their music. Prizes were awarded for music and poetry at the Olympic, Nemean, and Isthmian games, the poets reciting their own verses to the strains of music. At the Pythian games, which were of more recent date, prizes were given for instrumental music only. No professors seem to have been more highly honoured than those of the musical profession. Their pay was enormous. Inasmuch as the Greeks received their music from the Egyptians, so did the Romans, though in a much greater extent, receive theirs from the Greeks; and although the art was very highly estimated by this warlike people, they made little or no progress in it; indeed, none of the arts seemed to have received much attention from them. The musical art languished until the reign of Nero, by whom it was restored to its former splendour. He studied the art himself, and spent the greatest part of his time in receiving lessons from Torpius, the most skilful harpist and lyrist of his time. The successors of Nero encouraged public games and musical and dramatic performances to a considerable extent; thus the art continued to flourish until the fall of the Empire, when, in common with all other arts, it disappeared until the period of its revival in modern Italy. Music has been employed in the religious ceremonies of the Christian Church from the earliest ages. Of what it consisted during the first three or four centuries is purely a matter of conjecture, although we may naturally suppose it to have somewhat resembled that employed in the countries in which the early Christians dwelt. About the year 386, St. Ambrose, bishop of Milan, finding the whole system of church music in great confusion, determined upon reforming it, and composed what has been called, after him, the *Cantus Ambrosianus*, or Ambrosian chant (which see). Many attempts seem to have been made after the death of Gregory to improve musical notation. The practice then in use of placing letters or syllables to indicate sounds could not have been very intelligible or easy to read. About the end of the 10th century, seven parallel lines were employed, upon which the notes were expressed by dots or points; but it was not until 1022 that the great reformation of the musical scale took place. About this time Guido, a Benedictine monk, born at Arezzo, a small town in Tuscany, reduced the number of lines to four, and placed the points, not only on the lines, but between them. He also added to the ancient system a bass note, answering to the G or *sol* in our *fa* or bass clef: this note he designated by the *gamma* (Γ) of the Greeks; hence this series of sounds in the scale is called the gamut. He also invented the method of counting by hexachords, instead of by tetrachords, and of designating the major hexachord by the syllables

ut, re, mi, fa, sol, la. The invention of counterpoint has also been attributed to him by some authors; but this is unjust to his predecessors; for, although he was the first to write upon it, and it had made little progress before his time, he is not entitled to the honour of its invention. (See COUNTERPOINT.) Up to this period the plain chant consisted of notes of equal value in respect to time; rhythm was unknown. Now, however, musicians began to feel its importance. The first treatise on this branch of the art was written by Franco of Cologne, or, as some say, of Paris, in a work still extant, entitled "*Franconis Musica et Cantus Mensurabilis*." We may consider Guido and Franco as the authors of musical notation; all subsequent changes being merely modifications of their inventions, rendered necessary by the improvements in music. To the introduction of the organ, which took place in France about 757, and which came into general use in England, Germany, and Italy in the 10th century, we owe the invention of harmony. This noble instrument being played with keys, the production of simultaneous sounds became easy, and the beautiful effects of the union of concordant sounds must soon have been felt, and, once discovered, was diligently cultivated by a succession of eminent men; among whom we may mention Franco, before spoken of, Marchetto of Padua, John de Muris, John Okenheim, Josquin des Prés, and Claudio Monteverde. The science of harmony continued gradually to progress until the beginning of the 18th century, when it may be said to have reached its greatest refinement. The laws of harmony were first fixed and regulated about the middle of the following century, as we find from the writings of several authors of that time, and more particularly in those of John Tinctor, who was first chapel-master to Ferdinand, king of Naples, and afterwards canon and doctor at Nivelles, in Brabant. He wrote the first musical dictionary, and also the first treatise on this art ever printed in Italy. This was followed, a few years after (1496), by that of Franchino, Gafforio, in which the

doctrines we find in John Tinctor are much better developed. In the next century, however, melody and harmony were united by the brilliant genius of Palestrina and some of his contemporaries; while at the same time the art was enriched by the writings of Peter Aaron, Zarlino, Artusi of Bologna, Zaccagni of Venice, and others. According to M. Bombet, the oratorio was invented about A.D. 1540 by St. Philip Neri. (See ORATORIO and OPERAS; also HARMONY, KEY, SCALES, &c.)

MUSKET, *mus'-ket* (Fr., *mousquet*).—A description of fire-arm used in war, originally discharged by a match, and afterwards by a spring lock and a flint. The rifle has entirely superseded it as a military weapon, whilst the percussion-lock has taken the place of the flint-lock for sporting and other purposes.

MUSKETOON, *mus'-ket-oon'* (Fr., *mousquillon*).—A short, thick musket, now completely gone out of use.

MUSNUD, *mus'-nud*.—A Persian throne of state.

MUSTER, *mus'-ter* (Ger., *mustern*).—In Military language, a collection of troops for review, parade, or exercise.

Muster-Roll, a register of the officers and men in every regiment, troop, or company. This roll is delivered to the inspecting field-officer, or other official, who ascertains, by its means, the condition of the body of troops.

MUTE.—In Eastern countries, dumb slaves, sometimes made so by the removal of the tongue in infancy, and employed as torturers and murderers, the advantage being that they could not tell what they had seen.

In Music, a mute is a small piece of brass, box, or ivory, somewhat resembling in shape a very short comb. When in use it is placed in an erect position on the bridge of a violin, to deaden or soften the tone, which it does to such an extent as to render it almost inaudible in an adjoining room.

MYSTERIES. (See MORALITIES.)

N.

N, *en*, is a liquid consonant, or semivowel, the fourteenth letter and eleventh consonant of the English alphabet. It is formed by placing the point of the tongue against the root of the upper teeth, and emitting the sound principally through the nose. It is thus a lingual-nasal letter, when not affected by the neighbouring consonants. When final after *m* or *l*, it is silent in English; as in *condemn*, *kiln*. This letter readily unites with others, and is frequently omitted or inserted between other letters. In composition, the Latins frequently changed *n* before *p*, *b*, and *m* into *m*; as in *imprimis*, *imbellis*, *immigrare*; and frequently into *l* and *r* before these letters; as *illudo*, *irrigo*. It is often found associated with the labials *d* and *t*, while in other idioms it is omitted in the corresponding words; as in Latin *findo*, *fidi*; *insula*, Ital. *isola*. It is frequently dropped at the beginning or end of words; thus, *nadder* has become *adder*; Lat., *ordon*, *ordo*. The Latins omitted the *n* from Greek words ending in *on*; as *leon*, *leo*. The Greeks, on the other hand, added an *n* to Latin words which they adopted. It is often inter-

changeable with *l* or *m*. It is sometimes silent, or dropped, before *s* and *n*, as well as *t* and *th*; as in *censor*, *cesor*; *conventus*, *convent*; *contemporary*, *cotemporary*. Among the ancients, *N*, as a numeral, denoted 900, and with a dash over it, 9,000.

NABOB, *na-bob'*, a corruption of the Hindustani word *nuwwab*, which was the title of the governor of a province under the Mogul empire; such as the Nuwwab of Arcot, of Oude, &c. During the decline of the empire, several of these governors gradually assumed an independent sovereignty, and became either allies or dependents on the East India Company's government. The title of nabob, however, is borne by many persons as a mere titular appendage. In England, the word nabob has become proverbial, and is used to signify a person who has acquired great wealth in India, or lives with peculiar splendour.

NABONASSAR, ERA OF, *na-bon-as'-sar*.—The commencement of the Babylonian chronology, beginning with the accession of Nabonassar

to the throne, which is believed to have taken place 26th February, 747 B.C.

NAIADS, *na'-yads*.—The nymphs of fresh-water lakes, rivers, and fountains in the Grecian mythology. (See *NYMPHS*.)

NAISSANT, *nae'-sant*.—A term used in Heraldry to denote an animal as coming forth from the bar across the shield.

NALODAYA, *nal-od-a'-yo*.—A poem in Sanscrit, which is highly esteemed by the Hindoos.

NAMES, *naimez* (Sax., *nama*, a name; Lat., *nomen*).—That by which anything is called. (See *NOUN*.) When names denote individual objects, such as countries, rivers, towns, men, &c., they are called *proper* or *appropriate* names. More usually, however, the term proper name is applied to those of men. Amongst the Greeks, with the exception of a few families at Athens and Sparta, there were no family names. Among the Romans, each person had three names: first, the *prænomen*, or distinction of the individual; second, the *nomen*, or name of the clan; and third, the *cognomen*, or family name. A surname was sometimes added, which was borrowed from some exploit or remarkable event; as in the case of Scipio Africanus. The *prænomen* was always placed first, and usually written with one or two letters; as M. Marcus, C. Caius, P. Publius, &c. The *nomen* was second; as Julius Fabius, for the Julian and Fabian clan. The *cognomen* came last; as Cæsar, Cicero. Thus, in the name of M. Tullius Cicero, M. is the *prænomen*, distinguishing him from his brother Quintus; Tullius the *nomen*, distinguishing the clan; and the *cognomen* Cicero, which shows the family. Among the Celtic and German nations, each person was denoted by one word. This was also the case in the early and primitive states of society. Among the ancient Hebrews, the names of Abraham, Aaron, David, Solomon, were employed individually and singly. In the other nations which preceded European civilization, the same feature is to be observed. One word denoted one person in Egypt, Syria, and Persia. Amongst the Saxons in this country, this primitive system was prevalent not only when they were first established, but during the whole period when they held dominion in Britain. The names of Alfred, Harold, Edwin, &c., each signified a single individual. At the present day, the system of personal nomenclature is to have one name for the individual prefixed to another name which distinguishes the family to which he belongs. Probably one of the oldest methods of distinguishing different individuals of the same name was by adding their father's name to their own. Hence originated many English, Danish, and German names which end in *son*, *sohn*, and *sen*; for example, Williamson, Andersohn, Thorwaldsen. With feudalism in this country new names were introduced, derived from the districts conferred on the nobles, or from the feudal relations. Another class of names are those of locality, which are either derived from places of generic names, as Hill, Dale, Cliff, &c., or from some specific place, as Burton, Tenby, &c. Everywhere the nobility had family names before the commoners. But amongst the latter is a class of names derived from their occupations and trades; such as, Smith, Miller, Fisher, Barber, &c. The number of this class is very great, and includes the names of several lost trades, or trades which have changed their names: thus, we have Furbisher, Foster,

Fletcher, Pargitter, Taverner, Webster, Page, Reeve, &c. Sometimes striking external peculiarities or mental qualities have given origin to names, which have descended to the posterity of those on whom they were bestowed: such as Swift, Brown, Long, White, Black, Good, Wise, and others. Although the population of this country has increased very greatly, the number of Christian names has rather decreased than otherwise. There are only 53 names of men which can be used without some appearance of singularity. Of these there are 25 of Hebrew origin, 19 derived from the dialects of Western Europe, 5 from the Greek, and 4 from the Latin. Out of the whole there are twelve more in use than any others. These are—Charles, Edward, Francis, George, Henry, James, John, Richard, Robert, Samuel, Thomas, and William.

NAOS, *no'-as*.—A term applied to the enclosed room or cell in a Grecian temple.

NARTHEX, *nar'-thex*.—A portion of the old Christian churches reserved for the catechumens and penitents when they were separated from the rest of the congregation by a screen.

NATION, *na'-shun*.—At Glasgow University, a term used to distinguish sections of the students. (See *GLASGOW UNIVERSITY*.)

NATURAL, *nat'-u-ral*.—A term applied in Music to a certain character used to contradict the flats or sharps placed at the beginning of the stave or elsewhere; it is also applied to the two keys C major and A minor, because they do not require either sharp or flat in the formation of their proper intervals.

NAUTICAL ALMANAC. (See *ALMANAC*.)

NAVAL CROWN.—An heraldic device, consisting of a rim of gold, on which are alternately placed sails and prows of ships, granted as a reward for maritime service.

NAVE, *naiv* (from Sax., *naf*).—The body or middle part of a church, or other large building, between the aisles, and reaching from the rail or baluster of the choir to the chief door.

NEBULRY, OR NEBULES, *net'-ul-re*.—A Heraldic term applied when the line used in dividing the field of the escutcheon is drawn with undulations resembling the form of clouds. It is also applied to a shield or charge divided by several such wavy lines.

NECK MOULDING.—The moulding on a column at the junction of the capital and shaft.

NECROLOGY, *ne-kro'l-o'-je* (Gr., *nekros*, dead, and *logos*, discourse), literally signifies a discourse on a deceased person; but, in particular, it was anciently applied to a book kept in the monasteries and churches, in which were registered the benefactors to the same, the time of their deaths, &c.; as also the deaths of the priors, abbots, &c.

NECROPOLIS, *ne-krop'-o-lis* (Gr., *nekros*, and *polis*, a city), literally signifies the city of the dead, and was the name given to a suburb of Alexandria in Egypt, containing temples, gardens, and superb mausoleums. Hence it has come to be applied to some of the magnificent cemeteries in the vicinity of some of our large cities; as the necropolis of Liverpool, of Glasgow, &c.

NECTAR, *nek'-tar* (Gr.).—A term applied in Grecian mythology to the supposed drink of

the gods; and it was believed that this nectar, which they never gave to mortals, contributed much towards their eternal existence. According to the fables of the classic poets, it was a most delicious liquor, with properties far exceeding anything that mortals could imagine, as it gave a beauty, bloom, and vigour to all who imbibed it. Combined with the ambrosia (which formed the solid food of the gods), it repaired all accidental injuries or decays which might assail them.

NEEDFIRE, *need'-fire* (Ger., *nothfeuer*).—Fire generated by the friction of wood upon wood, or rope on wood. To fire raised in this way the superstitious have long attached peculiar virtues, the belief in which has not altogether died out even at the present time in remote districts. In case of calamity, such as disease in cattle, it was supposed to defeat the sorcery which was believed to cause the disease. While this fire was being produced, all other fires in the neighbourhood must be extinguished, to be afterwards re-lighted by this sacred spark.

NEGATIVE.—A photographic picture in which the lights and shadows of the object photographed are reversed. From it a number of positive proofs can be taken, and herein is its value. (See PHOTOGRAPHY.)

NEM. CON., *nem' kon*.—Is a contraction of the Latin words *nenime contradicente*, no one opposing, or unanimously.

NEMEAN GAMES. (See GAMES, PUBLIC.)

NEMESIS, *nem'-e-sis*.—In the early Greek mythology, the daughter of light, and originally intended to be a personification of the conscience. Afterwards she was considered as the inexorable fate which avenges wrong-doing. In the most ancient representations of Nemesis on coins and gems, she is represented as a young virgin; afterwards she appears robed in a tunic, bearing a sword, and at her feet a wheel on which a griffin rests his paw, and, on some engraved gems, as riding in a chariot drawn by griffins.

NEOLOGY, *ne-ol'-o-je* (Gr., *neos*, new; *logos*, word).—The invention of new words or phrases, for the purpose of expressing ideas which are either new or have hitherto been badly expressed, and a clear definition of which is demanded by the progress of science.

NEPENTHE, *ne-pen'-the*.—A word adopted from the Greek, signifying a drink calculated to banish the remembrance of grief and enliven the spirits. The first mention of it is in the *Odyssey* of Homer, who describes Helen as administering it to Telemachus, and states that she had learned the art of making it from Polydamna, wife of Thonis, king of Egypt. Of modern poets, Milton and Pope are the principal who have alluded to it.

NEPOTISM, *ne'-pot-izm*.—A term derived from the Latin word *nepos*, a nephew, first used in Italy in reference to the anxiety generally displayed by the popes to enrich and aggrandize their nephews. Its meaning has gradually become extended, and it is now generally applied to all persons holding public offices, who endeavour to advance the interests of their relations, whether nephews or not, at the public expense. Nepotism has in all ages and all countries excited great indignation; but the famous essayist Addison defends it, on the ground that, as it led to the concentration of great wealth in the hands of certain families, it was the means of enriching

Rome with splendid palaces and vast collections of the fine arts.

NEUTER, *nu'-ter* (Lat., *neither*).—In Grammar, signifies that gender of nouns which is neither masculine nor feminine. *Neuter verbs*, also called *intransitive*, are those which represent, or give effect in language, to a condition or operation as different from an action which passes from one object to another—I fall, &c.

NEW COLLEGE, OXFORD.—The common name for the College of St. Mary of Winchester, founded in 1386 by Bishop William of Wykeham. It is especially connected with Winchester School. Of the 30 fellows, one half must have been educated at that school, and the fellowships are worth about £200 a year. There are 30 scholarships filled by an annual election held at Winchester College; and ten scholarships open to all persons under the age of 20. All the scholarships are tenable for five years, and of the annual value of not less than £80. The buildings of the college at Oxford are magnificent, and the gardens are renowned for their beauty.

NEWSPAPERS, *nuz'-pai-perz*.—A class of literary publications issued at short and stated intervals, and containing intelligence of passing events. Some refer the origin of newspapers to the *Acta Diurna* (which see) of the ancient Romans. In modern Europe the newspaper made its first appearance in Germany in the 15th century, when small sheets, containing items of news, were issued at Vienna, Ratisbon, Augsburg, and Nürnberg. In Venice, during the war waged by that republic against the Turks in 1563, written sheets of news were circulated by the government; and eventually these were issued regularly once a month. (See GAZETTE.) The *Gazette de France* first appeared in Paris in April, 1631; and one article in it was written by Louis XIII., by whom, as well as by Cardinal Richelieu, it was patronized. It was formerly believed that newspapers were first established in England about the time of the Spanish Armada, during the reign of Queen Elizabeth; but the specimens preserved in the British Museum, and long regarded as authentic, have been proved to be forgeries. The first English newspaper was the *Weekly News* (or, according to some authorities, *Certaine Newses of the Present Week*), published in London, in 1622, by one Nathaniel Butter, a stationer who had failed in business, and who, as early as 1611, had given himself to the collection of news, which he transmitted in manuscript to persons who were willing to pay for the luxury. These missives were known as "news-letters." Other collectors of news followed the lead of Nathaniel Butter, and various newspapers, or, rather, news-pamphlets, appeared in the reign of Charles I. and during the Commonwealth period. In these small sheets there was little space for anything but brief news of fights and victories, and a few fierce polemical and political utterances; and advertisements, in any mode, were as yet almost unknown. People made known their wants or announced their wares by means of the common crier, with his loud voice and louder bell. But in January, 1652, a political genius, who wished to celebrate the achievements of Cromwell in Ireland, inserted a notice in the Parliamentary paper, *Mercurius Politicus*, of the publication of "An Heroick Poem," entitled "Irenodia Gratulatoria, being a congratulatory panegyrick for my

Lord General's late return, summing up his successes in an exquisite manner." After that, other advertisements appeared. While the great plague was raging in London, in 1665, the court removed to Oxford, and there was published *The Oxford Gazette*, for the purpose mainly of making court and official announcements. When the king and the ministers and court officials returned to the metropolis, the name of the paper was changed to *The London Gazette*, which still survives, known by name to everybody, but scarcely ever seen by the general public. Sir Roger L'Estrange, who had been appointed Censor of the Press after the Restoration—an office which would seem to imply that the swarm of little newspapers threatened to be troublesome to the king and his friends—began the *Public Intelligencer* in 1665, and the *Observer* in 1679. In 1688, the year in which Stuart James fled from England, and his daughter Mary and her husband, William of Orange, reigned in his stead, appeared the *Orange Intelligencer*, published twice a week, and consisting of a single leaf of paper, quarto size. The first number of the *Universal Intelligencer*, which appeared about the same time, had two advertisements. The excitement which attended the "Popish Plot" and the "Exclusion Bill" largely increased the number of newspapers, without much elevating their character; and increased efforts were made on the part of government to suppress unlicensed publications, while offenders were punished with atrocious severity. The Licensing Act was not abolished until after the accession of William and Mary. The first commercial newspaper, the *City Mercury*, was published in 1675; the first literary paper, the *Mercurius Librarius*, in 1680; the first sporting paper, the *Jockey's Intelligencer*, in 1683; the first medical paper in 1686. It was not till the reign of Queen Anne that the newspaper press became really eminent for intellectual power and talent. The first London daily newspaper, the *Daily Courant*, appeared in 1702, and was published at Fleet Bridge, the neighbourhood of which is still the home of the chief London papers. At first the *Courant* consisted of one page only, with a blank at the back. Soon afterwards Defoe commenced his *Review*. Five newspapers established before the year 1700 in Great Britain are still alive:—the *London Gazette* (1697), *Course of the Exchange* (1697), *Berrow's Worcester Journal* (1690), *Stamford Mercury* (1695), and the *Edinburgh Gazette* (1690); and seventy-four existing newspapers were first published in the last century, the *Edinburgh Courant* (1705), the *Nottingham Journal* (1710), and the *Dublin Gazette* (1711). Several of the London dailies which have reached to our days were established in the last century—the *Morning Post* in 1722; the *Morning Chronicle* (extinct in 1862) in 1760; the *Public Ledger* in 1759; the *Morning Herald* (amalgamated with the *Standard* in 1869), and the *Morning Advertiser* in 1794. In 1762 John Wilkes started the *North Briton*, which achieved so great a notoriety, and in the same year appeared the *Englishman*, to which Burke occasionally contributed. In 1769, and for two years afterwards, a daily newspaper, the *Public Advertiser*, which had lingered for many years in comparative obscurity, flashed into notoriety, and its issues were eagerly looked for, with fear and trembling by some, the reason being that the mysterious letters signed "Junius" appeared in its columns. (See JUNIUS.) In 1753 it

was computed that the aggregate number of newspapers annually sold in England, on an average of three years, amounted to 7,411,757; in 1760 it had risen to 9,464,790; and in 1767 to 11,300,980. In 1758, Johnson wrote in the *Idler*, "Journals are daily multiplied without increase of knowledge. The most eager peruser of news is tired before he has completed his labours." On the 13th of January, 1785, the first number of the *London Daily Universal Register* was published. Three years afterwards the proprietor changed its title and plan, and on New Year's Day, January, 1788, the *London Daily Universal Register* did not appear, but in its place there burst upon the world the *Times*, or *Daily Universal Register*, printed logographically, price threepence. (See TIMES.) In the first quarter of the present century about one hundred newspapers came into existence in the United Kingdom; but they had to struggle against heavy imposts. In 1776 the stamp duty had been raised to 1½d. for every sheet; in 1789 had been increased to 2d.; in 1794 another halfpenny was added; a penny more in 1797; and in 1815, for every sheet issued, a fourpenny stamp was imposed; and that rate continued until 1836, when it was reduced to 1d. on the sheet and ¾d. on the supplement. In addition to the stamp, the paper duty, 3d. per pound for printing paper, was levied; and on every advertisement which appeared, no matter of what length, a duty of 3s. 6d. was imposed. The publisher of a newspaper was liable to very heavy penalties if he issued an unstamped copy, and was compelled, in London, to send every sheet of paper to Somerset House to be stamped before being printed on, and in the country, to certain local branches of the stamp office. Attempts were made, especially by Mr. Carpenter and Mr. Hetherington, to evade the stamp duty and provide cheap newspapers, and the plan adopted by the former was certainly ingenious. He published a *Political Letter*, addressed to a friend or opponent, as the case might be, and containing a comprehensive digest of important events and passing occurrences, with original observations by himself. The price of each number was fourpence; and as no newspaper which paid the stamp duty could be brought out at that price, he reckoned on a circulation extensive in proportion to the cheapness of the paper. Being a practical man, with an eye to business, Mr. Carpenter reminded advertisers that his publication afforded them a capital opportunity of appealing to the purchasing public. In the first number, "A Letter to the Duke of Wellington," Mr. Carpenter said: "Believing that your Grace is often greatly misled as to what is going forward in the world, I have resolved to avail myself of this correspondence to lay before you a faithful chronicle of passing events, from which I am sure your Grace will not fail to derive materials for serious reflection, and for the framing, also, of some public measure of importance." Then follows a summary of intelligence from France, Belgium, and other places. In the next number, "A Monitorial Letter to Sir Robert Peel," that statesman is treated to reports of a parish meeting in St. Pancras, of a political banquet at Birmingham, and of stack-burning and other outrages in Kent, besides the official summary of the state of the revenue, a considerable amount of foreign intelligence, doings in the corn, hay, and meat markets, and in the money market, preceded by

the announcement, "The following information, Sir Robert, will be useful to you." The circulation, about 8,000 for the first "Letter," made a jump to 19,000, and ultimately reached 63,000, a prodigious number for those days. The government determined to take action in the matter; and on the 14th of May, 1831, Mr. William Carpenter appeared in the Court of Exchequer on an information filed by the Attorney-General. The Attorney-General contended that the publication was a newspaper according to the definition given of a newspaper in the Act 60, George III. The jury returned a verdict for the Crown, and Mr. Carpenter was sentenced to pay a penalty of £120, besides the stamp duty on the copies issued. Hethen made the *Political Letter* a regular stamped newspaper, issued at the price of sevenpence, but the circulation fell rapidly, and the publication was soon extinct. William Hetherington, a bookseller and news vendor in the neighbourhood of Holborn, published, on the 9th of July 1831, the first number, price one penny, of the *Poor Man's Guardian*, announcing it to be "established contrary to law, to try the power of might against right." It consisted of eight pages, about the size of the well-known *Family Herald* of later days. In the upper corner of the first page appeared a device resembling in size and shape the stamp then impressed at Somerset House on newspapers; but in the centre was the representation of a printing-press, with "Liberty of the Press" marked on the sheet just lifted from the types; and above and below it, in the places filled in the real stamp by the amount of the duty, the phrase, "Knowledge is power." Of course Hetherington did not escape prosecution; and between 1831 and 1835, about seven hundred prosecutions for selling unstamped newspapers were instituted, and nearly five hundred persons suffered fine or imprisonment. Some of the offenders were mere sellers, whose political opinions were nil; others, like Hetherington, were men of considerable ability, who fought for a cause as well as for the means of establishing a profitable trade in cheap newspapers. One of the projects for evading the stamp duty was the production of a "Political Handkerchief," on which items of news and comments should be printed, which would, the suggestor argued, "answer all the ends of a weekly journal." In 1853, the question as to the legal definition of a newspaper was again prominently raised. Mr. Charles Dickens had started a monthly summary of news, entitled the *Household Narrative*, similar in size and general appearance to his popular *Household Words*. The idea was not original, for nearly twenty years before, at the time when Carpenter and Hetherington were endeavouring to establish unstamped newspapers, the brothers Chambers of Edinburgh started *Chambers' Historical Newspaper*, to be published on the 1st of every month, at the price of three-halfpence. The first number, of sixteen pages folio, appeared on Friday, November 2nd, 1832. The publication not only called itself a newspaper, but actually was one, containing foreign, colonial and home news, "latest news of the month," prices of the public funds, lists of bankrupts, &c., &c., and social and political leaders. At the end of three years it was discontinued. Although sanctioned by this precedent, the Stamp Office authorities considered the *Household Narrative* to be a newspaper within the meaning of the Act, although published at in-

tervals of more than twenty-six days, and therefore liable to stamp duty. An information was filed against Messrs. Bradbury and Evans, the publishers; and three of the four judges of the Court of Exchequer were of opinion that the publication was liable to the duty, but Mr. Baron Parke held that it was not liable. An appeal to the Court of Exchequer Chamber would have been made, but Lord Derby's ministry went out of office on the 17th of December, and was succeeded by the ministry formed by the Earl of Aberdeen. Mr. Gladstone, the New Chancellor of the Exchequer, thought it right to adhere to the opinion of the majority of the court; and being extremely anxious, for the sake of literature, to prevent the litigation likely to occur, in order to settle the question definitely, the Attorney-General, Sir Alexander Cockburn, obtained leave to bring in a bill to amend the law, and give a substantive definition of a newspaper which would exclude from the operation of the stamp duty the publication in question, and other publications of a like nature containing news, but not published at intervals of less than twenty-six days. On the second reading of the Bill, the Attorney-General pointed out that, under the existing definition, a paper sold for more than sixpence was not liable to the duty. The object was to establish the law and make it uniform with regard to all classes of newspapers, whether large or small. The Bill was read a second time without a division, and receiving no opposition in the Lords, became law. The great impediments in the way of newspaper enterprise were the paper and advertisement duties. The result of the efforts made by Mr. Milner Gibson, Mr. Ewart, and others to obtain the repeal of these impositions are given in another place. (See ADVERTISEMENT AND PAPER DUTY.) The newspaper press being at length free from special taxation, a general lowering of prices and the appearance of many new journals rapidly followed. Most of the London weeklies, *Lloyd's*, *Reynolds's*, the *Weekly Times*, among them, reduced their price to one penny. The *Dispatch* held out till 1869, then came down to twopence, and in 1871 accepted its fate and fell to the inevitable penny. On Friday, January 29th, 1855, appeared the first number of the *Daily Telegraph and Courier*, price twopence. It consisted of four full-sized pages and twenty-four columns. In an announcement as the leading article the editor said: "We have resolved that the advertising columns of the *Telegraph and Courier* shall in no instance exceed the first page;" but occasional supplements of advertisements were promised. On Monday, the 20th of August, the words "and Courier" appeared in very small type under the chief heading, and a few weeks afterwards vanished altogether. At that time the paper had less than three columns of advertisements, all told. On the 17th of September, the *Daily Telegraph* lowered its price to one penny. In due time, the *Standard* (formerly an evening paper), having become amalgamated with the old *Morning Herald*, retained the former title, and was published at one penny. In the autumn of 1881, the aristocratic and fashionable *Morning Post* descended to the penny. The *Pall Mall Gazette*, and its young opponent, the *St. James's Gazette*, reduced their charge from twopence to a penny at the opening of 1882. A very remarkable development of journalism was the establishment in 1842 of the *Illustrated London News*, with abundant pictorial

representations, some of great artistic merit. It was speedily followed by the *Pictorial Times*, which did not enjoy a long life. In 1869, a splendidly-illustrated paper, the *Graphic*, appeared, and in 1874, the *Pictorial World*. The *Illustrated Sporting and Dramatic News* is another illustrated newspaper. There are more than fifty local newspapers, confining themselves exclusively to the news of the neighbourhood in which they appear, published in the immediate vicinity of the metropolis. The city of London alone supports two special newspapers—the *City Press* and the *Citizen*. The electric telegraph, and especially the vigorous application of it to journalism by Mr. Reuter, has had an immense effect in increasing the facilities for obtaining intelligence from all parts of the world. Mr. Reuter established an office, and for an annual subscription any newspaper could receive copies of all the telegrams which arrived at any hour of the day or night. The small papers paid the subscription, and were at once on an equality with the *Times*, *Standard*, or *Daily News*; the provincial papers published at Manchester, Leeds, Edinburgh, Glasgow, and almost everywhere else, had precisely the same intelligence which the metropolitan newspapers could supply, and at the same time, having received it by telegraph from Reuter's office in London. The success of the plan was complete, and the unflinching authenticity of the telegraphic intelligence supplied by Reuter inspired the public with confidence. In another way not only Reuter's system, but the use of the submarine and other telegraphs generally, greatly affected newspapers. Not only were they all nearly on a level as to the receipt of intelligence, but the brief telegraphic information "discounted" the interest of the detailed narrative. Formerly the result and the details came together; now the elaborated story had the freshness taken off it by the few words passed through the wire, and was perused at leisure almost as stale news.

Newspapers published in Great Britain and Ireland.—There are now (beginning of the year 1883) 2,172 newspapers published in the United Kingdom: London, 554; England, 1,177; Wales, 71; Scotland, 186; Ireland, 164; British Isles, 20. Of these 75 are daily papers, published in the morning, and 97 are published every evening. Included in the total 2,172 are 137 monthly publications, mostly "trade journals." Mr. May, in his "British and Irish Press Guide," supplies some interesting particulars:—"Although there are several journals recognized as Sunday Newspapers (all, except one, published in the metropolis), as a fact there is but one in London—the *Observer*—published on Sunday alone, the others issuing editions on preceding or following days also." In political advocacy 569 newspapers are classed as liberal; 376, conservative; 61 liberal conservative; 1,150 independent or neutral; 16 as "national." Of the whole number of newspapers published in the United Kingdom, there are over 50 which may be classed as religious, and representing the Church of England, Roman Catholic, Jewish, Baptist, Wesleyan, Congregationalists, Society of Friends, Presbyterian, New Jerusalem Church, Unitarian, and other denominations. There are 125 newspapers regularly illustrated, and seven occasionally illustrated, two contain coloured illustrations, and one is illustrated by means of photography. Six newspapers appear in the French language, including four published in the Channel Islands, two in German, and two in English, French, and Spanish; besides these, there are nine printed in the Welsh language. There is great variety in the price of newspapers, 107 (97 in the metropolis) being issued at sixpence a copy; 115 at threepence; 269 at twopenny; the large number of 1,257 at one penny; and 179 at one halfpenny. Higher prices are charged for a limited number of newspapers; and 13 are issued gratis, being advertising sheets, with the

merest modicum of news. The following is the length of time, as far as can be ascertained by Mr. May, during which existing newspapers have been uninterruptedly issued in the United Kingdom:—Before the year 1700, 5; 1700 to 1799 inclusive, 74; 1800 to 1810, 29; 1811 to 1820, 27; 1821 to 1830, 46; 1831 to 1840, 98; 1841 to 1850, 122; 1851 to 1860, 428; 1861 to 1870, 421; 1871 to 1880, 657; 1881 to 1882, 205.

Indian and Colonial Newspapers.—The first Anglo-Indian newspaper was *Hickings Gazette*, which appeared at Calcutta in 1781; the well-known *Bengal Hurkaru* was established in 1795. The first Australian paper was the *Sydney Gazette*, founded in 1803. In 1804 a newspaper was started in Hobart Town, Van Diemen's Land. The *New Zealand Gazette* and *New Zealand Advertiser* were established in 1839; and two newspapers are now established in the Fiji Islands.

American Newspapers.—In the United States there are about 1,000 daily papers, with an aggregate circulation of 360,000,000, and about 740 newspapers published at other times. In the State of New York alone there are 115 daily and 183 other papers. It is estimated that the people of the United States spend 26,250,000 dollars (nearly five millions and a quarter of English currency) annually on newspapers. The first American newspaper was the *Boston Newsletter*, founded in 1704.

Newspapers on the Continent of Europe.—The following summary very nearly represents the newspaper enterprise of Europe. *Austria and Hungary*—29 newspapers (one illustrated) are issued in Vienna; 15 at Buda-Pesth, and 11 at Prague; and papers are published in 32 other towns of the empire. *Belgium*—Brussels, 22; Antwerp, 5; and 15 other towns have newspapers. *Denmark*—Copenhagen, 16 (one illustrated); 36 other towns have newspapers. *France*—Paris issues 93 newspapers (three illustrated); Bordeaux, 4; Grenoble, 5; Nice, 11 (one in English); St. Etienne, 5; and nearly 80 provincial towns publish newspapers. *Germany*—Berlin, 54; Munich, 26 (one illustrated); and newspapers are published in 336 other towns. *Greece*—13 papers are published at Athens. *Holland*—Amsterdam, 11; Rotterdam, 8; and papers at 38 other towns. *Italy*—Rome, 22; Florence, 11; Naples, 13; Venice 6; Bologna, 7; Genoa, 9; Palermo, 11; Turin, 8; Milan, 10 (one illustrated); and 39 other Italian towns publish newspapers. *Portugal*—Lisbon, 15 (one illustrated); Oporto, 9; Coimbra, 40. *Roumania*—Bucharest, 15; Jassy, 6; and journals are published at 4 other towns. *Russia*—St. Petersburg, 15 (one illustrated); Moscow, 11; Warsaw 13; Odessa, 7; and 23 other towns issue newspapers. *Servia*—Belgrade, 6; Pozarevatz, 16. *Spain*—Madrid, 17 (one illustrated); Barcelona, 8; and 28 other towns publish newspapers. *Sweden and Norway*—Stockholm, 10; Christiana, 12; 79 other towns possess newspapers. *Switzerland*—Berne, 5; Basle, 6; Geneva, 7; Zurich, 6; Fribourg, 5; Lausanne, 6; Aarau, 5; and newspapers are published at 32 other Swiss towns. *Turkey*—Constantinople, 18 (one the *Levant Herald* in English); and papers appear in 4 other towns.

NEW STYLE.—The name applied to the days of the year according to the Gregorian calendar, adopted in England by statute in 1752. (See CALENDAR and STYLE.)

NIBELUNGEN-LIED, *ne-be-lung'-en leed'* (Ger., Song of the Nibelungen).—A celebrated ancient German epic poem. The story is, that Siegfried, the son of Siegmund, king of Netherland, the Achilles of Scandinavian and Teutonic legends, having slain a dragon, vanquished the royal race of King Nibelung, in Nibelungen Land, and obtained possession of their fabulous amount of treasure, comes to Worms to woo the world-famous Chriemhild, sister of King Günther. She had forsown marriage in consequence of a dream; but by his valour in vanquishing all the knights who ventured to meet him, he won her heart. Her brother Günther hears of the beautiful and redoubtable Bruneild, queen of Isenland, and resolves to stake his fortune as her

sutor. The condition was that he should engage in three combats with her, and if vanquished, be put to death. Siegfried accompanies and aids him, being promised the hand of Chriemhild if he should be successful. The heroes reach their destination, and Bruneild appears in the lists with a shield of beaten gold, so heavy that four of her chamberlains can scarcely bear it. Günther is in despair; but an invisible person by his side bids him take courage, seizes his arm, hurls the spear and flings the stone till the maiden acknowledges herself vanquished. Siegfried, the real winner of the contest, who had rendered himself invisible by his magic cap, is rewarded with the hand of Chriemhild, and the two marriages are celebrated amid the utmost pomp and rejoicing. Dissensions ensue between the queen and her sister-in-law; Siegfried contrives to obtain the girdle of the former and to present it to the latter, who afterwards tells the whole story of her husband's valour, and charges her rival with love for him. The latter vows revenge, and secures the aid of the fierce and covetous Hagen, who sought the Nibelungen treasure, and who, having skillfully drawn from Chriemhild the secret of the spot where alone Siegfried was vulnerable, treacherously plunges a lance between his shoulders in a royal chase. After the death of her husband, Chriemhild lives in melancholy retirement at Worms, Hagen having sunk all her Nibelungen treasure somewhere in the Rhine. Then Etzel (Attila), king of the Huns, seeks her in marriage, and she consents, in order that she may avenge the death of Siegfried. After seven years of repose in Hungary, she persuades Etzel to invite Günther and his heroes to visit him. They accept, and go with a retinue of 10,000 men. Provided with gifts, they advance into Etzel's land, and are received with great honour; but the queen greets Hagen coldly. A tumult at length ensues, which results in a dreadful battle, in which many heroes on both sides are slain. Günther seeks a reconciliation; but rejects the proffered terms, requiring the surrender of Hagen, and the queen orders the hall in which they were to be set on fire. Six hundred only survive the conflagration, by penetrating deep into the walls. The contest is renewed, until at last, of all the Burgundians, only Günther and Hagen remain, and are delivered in bonds to Chriemhild. She demands of Hagen where the Nibelungen treasure is concealed, but he refuses to betray it so long as one of his lords lives. The head of Günther is struck off; but Hagen then declares that he alone now knows where the treasure is concealed, and will not reveal it. Chriemhild thereupon grasps the sword of Siegfried and beheads him at a blow; but the Hunnish warrior Hildebrand, enraged at seeing a hero fall by a woman's hand, slays the queen. This poem is substantially the work of an age anterior to Christianity. It is regarded as composed of several pieces of unequal antiquity; the origin of the traditions embodied in it being usually attributed to the Scandinavians. The poem assumed its present form from the singing or recitation of a wandering minstrel, very early in the 13th century; and was soon afterwards circulated in manuscript. About twenty copies, more or less perfect, are known to exist. The first complete edition of the poem was published by C. H. Müller (1782). A critical edition was published by Lachmann (1826). There are English translations by Birch (1848) and Lettsom

(1850). Carlyle published a critical analysis of the poem in his "Miscellaneous Essays."

NICHE, *nitch*.—In Architecture, a recess in a wall, sometimes highly ornamented and with a canopy, for the reception of a statue or ornamental figure. It is a prominent feature of Gothic architecture.

NIELLO, *ne-el'-lo* (Ital.).—A kind of engraving of considerable antiquity, and the origin of engraving as it is understood at the present time. During the Middle Ages, when the art was chiefly practised, the method consisted in drawing a design with a style upon gold and silver plates, and then cutting it with a burin. These incised lines were filled with a composition made by heating together quicksilver, lead, and silver. It was the practice to decorate the communion service of the churches, as well as other plate, in this manner. Some Byzantine works of this kind are as old as the 12th century; and the art attained its perfection in the 15th century, when Maso di Finiguerra, a painter, produced some exquisite specimens. The art has long passed out of use. Old nielli are exceedingly rare, and are only to be found in the collections of national museums or of wealthy virtuosi.

"NOCTES AMBROSIANÆ," *noh'-tes am-bro'-si-a-ne*.—A famous series of papers contributed by Professor Wilson to *Blackwood's Magazine*, professing to describe the conversations at meetings of a club held at a tavern in Edinburgh, kept by a person named Ambrose. The principal speakers are Christopher North (Wilson himself), and well-known literary characters, especially Hogg, the "Ettrick Shepherd," who are supposed to take part in the literary and critical talk. Wilson himself, however, is the sole author. There are many passages of noble imagination mingled with a wild humour.

NOCTES ATTICÆ, *noh'-tes at'-ti-se*.—A curious work of the 2nd century, containing many personal recollections of eminent orators and others, anecdotes, witticisms, and grammatical criticisms; a sort of commonplace book, compiled by Aulus Gellius, or Agellius, a man of property, who having studied philosophy and rhetoric under the most eminent teachers, and held a high legal office at Rome, retired to a villa near Athens, and occupied himself by compiling the book for the amusement of his children, and to beguile the dreary winter nights. Hence its name. A portion of the manuscript is preserved. It is a storehouse of antiquarian and biographical information, and abounds in lively descriptive and humorous stories. Scholars are greatly indebted to it, as a source of information, respecting the persons and manners of the Roman Empire, under Hadrian, Antonius, Pius and Marcus Aurelius.

NOMADS, *no'-madz* (Gr., *nomades*, from *nomos*, pasture).—A generic name given to several nations or peoples, whose sole occupation was to feed and tend their flocks, and who frequently changed their place of abode in search of pasturage. The nomads most prominently mentioned in ancient history were those of Africa, who were called Numidians; those of Asia, dwelling on the coasts of the Caspian Sea; the nomads of Arabia, occupying a territory east of the deserts of Palmyra; and those of Scythia.

NOME.—A musical term in use among the

ancient Greeks to indicate any melody determined by inviolable rules.

NOMENCLATURE, *nomen-klaɪ-ture* (Lat., *nomen*, a name, and *calo*, I call).—A term originally applied to a catalogue of the more usual words in any language with their significations. It is now commonly used to denote the language or terms peculiar to any particular art or science—as, the nomenclature of chemistry, botany, &c.

NOMINATIVE CASE, *nom'-e-na-tiv*, in Grammar, is the first case of nouns which are declinable. It is the simple position of a noun or name, designating a substance absolutely, or without relation to any other substance, and is chiefly placed before verbs, as the subject of the proposition or affirmation.

NON COMPOS MENTIS, *non kom'-pos men'-tis*, (Lat., not of sound mind).—A phrase used to denote one of unsound mind. (See LUNACY.)

NONES. (See CALENDs.)

NORMAL OR TRAINING SCHOOLS, *nor'-mal* (Lat., *norma*, a rule or pattern), are schools for the education of teachers. They originated in Germany, and were for a long period confined to that country. The first was organized at Stettin, in Prussia, in 1735; the next by Frederick the Great, at Berlin, in 1748; another was opened in Hanover in 1757; and others followed in various parts of Germany. Since the beginning of the present century they have rapidly increased in number, and been greatly improved in their internal organization. A school of this character was established at Paris in 1795, under the direction of Laplace, La Harpe, and other eminent men, but was soon closed. Another, established by Napoleon in 1808, was closed in 1822; but the place was revived four years afterwards. In England, the Borough-Road Institution was originally founded by Mr. Lancaster in 1805, for the training of teachers; and from the earliest part of their career, both the "British" and the "National" Societies have devoted much of their attention to the training of efficient teachers for the schools in connection with them. In 1830, the Sessional School of Edinburgh was founded, and it afterwards developed into the "General Assembly's Normal Institution." Sir James Kay Shuttleworth, in conjunction with Mr. Tuffnell, in 1840, established an experimental training college at Battersea. The earliest proceeding of the Committee of Council on Education (1839) was to record their opinion, "that the most useful application of any sums voted by Parliament would consist in the employment of these monies in the establishment of a normal school under the direction of the State." There are now in England and Wales about fifty training institutions, many largely supported by Government. The first normal school in America was opened at Lexington in 1839; and now most of the principal cities have their normal schools.

NORMAN ARCHITECTURE, *nor'-man*.—A style of architecture which flourished originally and principally in Normandy, as its name denotes. It afterwards became prevalent in other places wherever the Normans obtained influence or dominion; among others, in this country. The Norman style is allied to the debased Roman examples of the Eastern and Western empires, and may be with them included in the general

title of Romanesque. It cannot, however, be ranked as of equal importance with the Byzantine or Lombardic divisions, of both of which it is a modification. It is not decided at what period the Norman style was first introduced into England. Some persons are of opinion that it was introduced by William the Conqueror; others by Edward the Confessor; while a third party maintain that it was merely a development of the Saxon, or the style immediately preceding. It would seem, however, that the Saxon and Norman were distinct styles emanating from the same grand type; and consequently, to a certain extent, modifications of each other. The Norman style in general is styled the architecture of the 12th century, and dates from 1066 to 1170. In the larger Norman churches the plans are generally cruciform; at the intersection between the nave, choir, and transepts, there is a low massive tower, and the choir is usually terminated with a semicircular apse. In many cases the aisles of the nave are continued at the sides of the choir, and the high altar is situated between the easternmost piers, with a screen behind stretching between the piers. A space was thus left clear at the back of the altar, which was called the retro-altar, and thus allowed processions to perambulate entirely round the church. The choir, in some cases, was surrounded by chapels, having also apsidal terminations. The width of the aisles was very small, in some cases being not more than four to six feet. In most cases the western façades are flanked by turrets or buttresses, but occasionally by towers. The parish churches were usually small, consisting of a nave, often without either porch or aisles, with a chancel and tower. Small churches, however, often consisted of nave and chancel, only without any tower or other appendage. In the buildings of this period the walls were of great thickness, but the masonry was not solid, being composed of two external walls of ashlar-work, having the space between filled up with rubble, gravel, flints, &c. Sometimes, however, the walls were made up of solid rubble-work with quoins of ashlar. The former kind were not durable; but the introduction of buttresses at a later period led to a great improvement in the construction of walls. The arches of the Norman style are invariably of the semicircular form, but occasionally stilted, and the only variety in the proportions of arcades depends upon the height of the piers, the height of the opening usually averaging about twice its width. Chancel arches are sometimes deeply recessed and ornamented with a number of rich mouldings. The piers which support the principal arches of construction are very massive, and frequently of stunted proportions. The capitals are very varied in character, some bearing a more or less close resemblance to the Corinthian and other classic styles. Many, however, are not elaborately carved, several of them being quite plain; the most common of these is the cushion capital, which is of cubical form, being rounded at the lower end to meet the shaft. The doorways in this style are to be found in very great variety, from the most simple to the most elaborate. In this country there still remains a great variety of Norman doorways, even in churches which present no other features of this style. Windows in this style were subordinate members of an edifice, and in the earlier examples are nothing more than mere slits, or narrow oblong apertures, often not exceeding a few inches in breadth, and finished with a plain

semicircular head. Larger windows are to be found in cathedrals and in the larger churches. The *mouldings* in the Norman style are of great variety, and in some instances are very elaborately carved. One of the most favourite and characteristic is the *zig-zag*, which is composed of a series of salient and re-entrant angles, recessed or otherwise carved on the surface of the stone, sometimes in a single line, but more frequently in two, three, or more lines running parallel to each other. Other kinds are the *indented* or *trowel-point*, the *beak-head*, *bird's-head*, and *cat's-head* mouldings; the *nail-head*; the *billet-moulding*; the *embattled*, *star*, *medallion*, and *lozenge* mouldings, &c. The chapel in the White Tower of the Tower of London is the earliest example of pure Norman work in England. In the cathedrals of Canterbury, Durham, Winchester, Gloucester, Peterborough, Ely, Norwich, Lincoln, and Oxford, the older parts are all built in the Norman style. The nave and choir of Norwich cathedral, with the exception of pointed windows of later English character inserted in the upper part of the choir, are almost entirely Norman. There are very few examples, however, of the exterior Norman style: the fronts of Lincoln and Rochester cathedrals are almost the only instances; but they display a mixture of several other styles. The leading feature in a Norman fortress was a lofty mound of earth, thrown up in the centre of other works from the excavations necessary in forming the ditch, fosse, or moat. A square or circular tower, of several stories, rose from the upper ballium, or a low circular story of considerable diameter, which was generally approached on the outside by a very steep, stone staircase. The gateway, or tower of entrance, was built at the foot of the artificial mount, from which was a sally-port with stone stairs leading to the keep. It contained the portcullis and drawbridge fixed to the archway, and several spacious chambers. The gateway, and the barbican or watchtower, had both of them a communication with the keep. (*See CASTLE.*) From the year 1155, the Norman architecture began to be mixed with new forms and additions, and was at length superseded by the more elegant and lofty style of building usually called the Gothic.

NORSE, *norse*.—A corruption of the Danish *Norsk*, Norwegian, and is applied by English writers to the Icelandic, or ancient Scandinavian language. The Norsemen are the Normans. (*See NORMANS.*)

"NORTH BRITON" NEWSPAPER was commenced on the 29th of May 1762 by John Wilkes, M. P. for Aylesbury, in opposition to Lord Bute's administration. The Government quailed before its attacks, and watched for an opportunity of punishing it. This was at length found in the 45th number, which charged the king with having uttered a falsehood in his speech from the throne. A general warrant was issued against the authors, printers, and publishers of the *North Briton*, and Wilkes was seized and committed to the Tower, but obtained a writ of *habeas corpus* and was liberated, Lord Chief Justice Pratt deciding that the arrest was illegal. On obtaining his liberty, he brought an action against the under-secretary of state for the seizure of his papers, and obtained a verdict in his favour with £1,000 damages. When Parliament met, the House resolved, by a majority of 237 against 111, that the *North*

Briton, No. 45, was a false and scandalous libel, and that it should be burnt by the common hangman. When the sentence was being carried out in Cheapside, on December 3rd, 1763, a riot ensued, and the hangman only succeeded in burning a part of the paper, the remainder having been carried away in triumph by the mob.

NORTHMEN, OR NORMANS.—The ancient inhabitants of Scandinavia, or Norway, Sweden, and Denmark. They were fierce and warlike tribes, who made piratical expeditions to all parts of the European seas, plundering by land and by sea, and often overrunning large tracts of country, in which they practised every enormity. The great invasion of France did not take place till 841, after which the whole coast of Western Europe, from the Elbe to the Guadalquivir, fell a prey to the Northmen. In 837 they had sacked Utrecht and Antwerp, and fortified themselves on the island of Walcheren, spreading themselves on the mainland. Flanders was obstinately defended; but Friesland, Lower Lorraine, and Neustria, fell without resistance. Rollo devastated Holland, and appeared upon the Seine, while Gottfried ravaged the valleys of the Meuse and Scheldt. Hastings, at the head of a band of Northmen, sacked Bordeaux, Lisbon, and Seville, defeated the Moorish conquerors of Spain at Cordova, overran Italy and Sicily, and crossed the straits into Morocco. In 885 they laid siege to Paris, but were at length bought off by Charles the Fat. Rollo, one of the most renowned of the Norman chieftains, after ravaging Friesland and the countries watered by the Scheldt, accepted the hand of a daughter of Charles the Simple, and received with her a tract of Neustrian territory, north of the Seine (the modern Normandy), taking also an oath of fealty, and being baptized (912). His followers received the religion of their leader, and abandoned their roving and piratical habits. Rollo thus became the first Duke of Normandy, and his descendant, William, the seventh duke, became the conqueror of England in 1066.

NORWEGIAN LANGUAGE AND LITERATURE, *nor-væ-je-an*.—The ancient Norwegian tongue was formerly the common language, with only trifling variations of dialect, of Denmark, Norway, and Sweden. With the advent of Christianity, however, about the 10th century, this language was by degrees supplanted by the modern Danish, and only found a permanent abiding place in Iceland, where it is still spoken in its purity; and hence it is now commonly known as the Icelandic. Norway, in consequence of her remote situation, retained the old tongue longer than either of her sister kingdoms. The few mediæval Norwegian documents that still exist do not exhibit any important grammatical changes until about the time of the annexation of Norway to Denmark, towards the close of the 14th century. But from this time the influence of the governing nation was such that a rapid transformation took place, and soon after the beginning of the 16th century the written language and speech of the higher classes became identical with those of Denmark. At present, the Danish is the language of the people generally; but among the peasantry, and in the more remote districts, the old Norse language is still spoken in various dialects, diverging more or less in their structure from the ancient tongue. The different Norwegian dialects have been classed in three divisions, corresponding to

the natural divisions of the country: the *Nordenfjeldsk* group, comprising those spoken in the province of Drontheim and the extreme northern provinces; the *Vestenfjeldsk* group, or those spoken west of the mountains, in Bergen and the western portion of Christiansand; and the *Söndenfjeldsk* group, including those spoken in Southern Norway, or to the east of the mountains. Of these three divisions, the second approaches nearest to the Icelandic, while the last-named, lying nearer to Christiania, has been most largely influenced by the Danish. All of them possess some peculiarities in common which distinguish them from the written speech. The earliest literature of the northern countries is of an antiquity vastly remote; consisting of those accounts of their gods and heroes which had been handed down from age to age by a class of poets and oral historians, educated for the purpose, and styled Scalds and Sagamen. Sámund Sigfusson, surnamed Fróde, or the learned, who flourished in the latter half of the 11th century, wrote down all that remained of the great mythologic and heroic poems of the ancient Scalds, under the name of the Elder or Rhythmic Edda. After him followed Ari Hinn Fróde who began the chronicles of Iceland in the "Landnama Bok;" and Snorro Sturleson, the author of the Second or Prose Edda and the "Heimskringla," or chronicle of the kings of Norway. These, with a great number of romantic and popular sagas, constitute the mass of the ancient Norse literature, which, escaping the annihilating hands of the Roman priests in that remote island, which remained an independent republic till 1261, astonished the learned world of Denmark and Sweden by their discovery in the middle of the 17th century. During her political connection with Denmark, and as using the language of that country, Norway, though she produced a number of writers, cannot be said to have had any distinct literature of her own. The writings of her historians, poets, and men of science, properly form a part of Danish literature. Her political union with Sweden, a country possessing a different language, and the establishment of an independent government in 1814, gave an impulse to the national spirit, and with the establishment of the University of Christiania (founded in 1811), led to the development of an independent literature. Its noted publicists and economical writers are, C. M. Falsen, Sverdrup, Røder, Mariboe, Petersen, Platau, Daa, Blom, and F. Monrad; the last of whom has recently given to the public a large work on the history of political science. Keyser and Munch have critically and philologically edited the ancient Norwegian code of laws. Schweigaard has written commentaries upon the present jurisprudence; and among other juridical writers of eminence are, Aubert, Røder, P. C. Lassen, Smidt, Bull, and Brandt. Besides numerous valuable statistical tables issued annually by the government, J. E. Kraft has published an able topographical and statistical description of the kingdom; Tvethe issued his "Norges Statistik" in 1848; and in the department of social statistics, the treatises of Eliert Sundt are well known. In physics, several Norwegians have achieved a European reputation; as Christopher Hansteen (astronomy and terrestrial magnetism); B. M. Keilhau (geology); Theodor Kjerulf (geology); Jens Esmark (geology and the structure and formation of glaciers); J. C. Hørbye

(the erosion of mountains). The leading botanists have been Christen Smith, Sommerfeldt, and Blytt. In zoology, the splendid work of Michael Sars, a Norwegian *Fauna Litoralis*, is widely known; and Halvor Rasch has also written some able treatises on the same subject. In Mathematics are the names of N. H. Abel, B. Holmboe, and O. J. Broch. In medical science, Danielsson and Boeck have laid before the world important investigations on elephantiasis, and more recently (1860), Bidentkop has published a valuable treatise on the same subject. The history, philology, and antiquities of Norway have been studied with unflagging industry. A. Faye has published a history of Norway; Rudolph Kayser, an account of the religion of the ancient Northmen, and a history of the Norwegian church during the Catholic period; C. A. Lange and C. R. Unger are editing *Diplomatarium Norvegicum*; and Nicolaysen and others have illustrated the ancient remains scattered through the country. P. A. Munch has produced a most important national historical work, entitled "Det Norske Folks Historie," of which four volumes have already appeared, and come down to the end of the 14th century. The publication in 1847 of the elder Edda, by Munch, with a grammar and lexicon of the old language, led to the formation of the Norwegian school of philology, whose national zeal has led to many warm disputes among the Scandinavian philologists. The dialects of the Laplanders, who live under the Norwegian government, have been industriously studied by Stockfleth and Friis; and C. A. Holmboe has done good service in the cause of comparative philology, by the publication of his "Comparative Lexicon of several of the Indo-European Tongues" (Vienna, 1852), and other works. One of the most popular of modern poets is Andreas Munch, a cousin of the historian, who has produced a number of poetical and dramatic works. H. A. Wergeland (1808-45) was long the favourite poet of the Norwegians. The poems and dramas of H. A. Bjerregard (1792-1842) are national in spirit. J. S. Welhaven published a great number of lyrics, and several historical dramas, founded chiefly on national subjects. As dramatic writers, the best and most popular are C. P. Riis, H. Ibsen, and R. Olsen. M. B. Lanstad and Sophus Bugge have each edited collections of old popular ballads, and P. C. Asbjørnsen and J. Moe have collected the popular tales, which have been orally preserved by the peasantry for many generations. A literal reprint of the well-known "Flateyarbok" (*Codex Flatonensis*), containing all sorts of historical legendary in prose and verse, is in course of publication, with the assistance of the government. Later times, without producing any very great authors, have been marked by the maintenance of a good position in most departments of literature, especially in respect to scientific research.

NOSE.—In man, the nose forms one of the characteristic features of the face, and has been regarded by physiognomists as a faithful index of character. The nose has always been regarded as a principal element in conferring beauty on the face, and the Romans esteemed above all the aquiline nose. But the aquiline nose was only regarded as beautiful when the curve was gentle and almost imperceptible. The Greeks, indeed, seem, generally speaking, to have held a straight,

or almost straight, line from the forehead to be the *beau idéal* with respect to this feature; and, accordingly, we find it so represented in all their best statues.

NOTATION, *no-tai'-shun* (Lat., *notatio*, from *noto*, I mark), is the art or method of representing abstract numerical magnitudes by means of symbols; and it comprises *scales*, dependent on the symbols or figures employed. In the usually adopted scale, every number can be expressed by the ten characters—1, 2, 3, 4, 5, 6, 7, 8, 9, 0; of which the nine first denote the different number of units, ascending in value from right to left, while the figure 0 is the *radix* or scale of the series, and fixes the different values, of which the various figures taken might be equal. Thus, for instance, if we take the number 12345, it is equivalent to $5 + (4 \times 10) + (3 \times 100) + (2 \times 1000) + (1 \times 10000)$. The Romans possessed a decimal numerical system, but not a decimal scale of notation; they first adopted the unit I. as the commencement of their system, and they brought five of them together with the sign V. They then added two of these V's—equivalent to X. Five tens then made 50, or L. One hundred was expressed by the letter C, the initial of the word *centum*; five hundred by the letter D, and a thousand by the letter M. It must be observed that the position of one of these signs before another one takes that amount from it, as can be seen in the number IX. (9), which is 10 less than the unit 1. The Greeks had the letters of their alphabet as the symbols of notation. In mathematics, occasionally, other scales of notation are adopted, which differ from the usual one in consequence of the *radix* being altered, as the *binary*, *ternary*, &c., up to the *duodecimal* scale, which latter is of much use in calculating *artificer's work*.

In Music, Notation is the method which, by means of certain characters called notes, represents the pitch or tone and duration of the various sounds. The notation of the ancients did not at all resemble that at present in use. The Greeks employed the letters of their alphabet placed in various positions, and mutilated and compounded in various ways, producing in all over a thousand signs; thus rendering years of study necessary to obtain anything like a perfect knowledge of it. This system was rejected by the Romans, who employed fifteen letters of their own alphabet to express the sound of the bisdiapason. This was afterwards improved by St. Gregory, who reduced the number of letters to seven; thus bringing it nearer the modern system. About the beginning of the 11th century, points placed upon parallel lines were introduced. These points, however, have been in their turn superseded by other characters, which not only mark the pitch, but the time of the notes; of these the six principal ones are the semibreve, the minim, the crotchet, the quaver, the semiquaver, and the demisemiquaver. The use of varying the forms of the notes is to mark the various degrees of time. The longest is the semibreve; the next in duration is the minim, which is one half its length; the crotchet is $\frac{1}{2}$, the quaver $\frac{1}{4}$, the semiquaver $\frac{1}{8}$, the demisemiquaver $\frac{1}{16}$.

NOVELS, *nov'-elz* (Ital., *novella*, a tale, news).—What is meant by the English novel is called in Italian *romanzo*. A taste for fictitious narratives was most early and most generally prevalent in Persia and other Asiatic countries, that from them spread to the Greeks, by whom it was communicated to the Romans, through translations into Latin of the tales of a certain Aristides, about the time of the civil wars of Marius and Sylla. The oldest known novel or work of fiction in the world, is contained in an

Egyptian papyrus more than 3,000 years old, now in the British Museum. Portions of it had been deciphered, but the first complete translation was published in German, in 1865, by Dr. Brugsch, the eminent Egyptologist. It was written by one of the royal scribes for Seti Menephata, son and heir of Rameses II. Mr. Emanuel Deutsch, says of it: "It is lucid and clear, and, though full of poetic fancy, yet simple and unaffected, reminding the reader of the grand simplicity in word and thought found in Scripture." The chief personages are two brothers and the wife of the elder, who makes an accusation against the younger brother, similar to that which Potiphar's wife made against Joseph. The young man saves himself from his brother's wrath, and goes, aided by the sun-god, through a peculiar transformation. The wife meets her well-deserved fate, and the two brothers are in the end restored to each other's esteem, and the elder becomes regent of Egypt. The direct source of the British novel has long been a *vecata questio*, but is generally attributed to the example of the Italians, from whose works of fiction our earliest and greatest play-writers borrowed many of the plots for their most popular comedies. That the novel succeeded to the historical romance is certain; but it is impossible to name an exact time at which the one ended and the other commenced. In the age of Elizabeth, Spanish romances were introduced, and were read concurrently with certain native compositions, first introduced by a certain John Lyly, which contained all the faults of the old romances without any of their vigour or brightness of colouring. Early, however, in the 17th century, innumerable translations and imitations of Italian tales supplied the English with a new taste, or one which had hitherto lain dormant, and set English writers to work at those pictures of contemporary life and manners which form so important a portion of the literature of the country. About the middle of the 17th century, Mrs. Aphra Behn inaugurated, in England, the modern system of making contemporary life the subject of fiction, by writing the story ("Oroonoko") of the sufferings of a certain negro with whom she had herself been acquainted; about the same time a Mrs. Manley filled works of fiction with current fashionable scandal; and they were quickly followed by Defoe, whose "Moll Flanders" and "Colonel Jack" may be regarded as precursors of a large number of the best novels of our own day. The last century was rich in novelists, who are still, and will probably long be regarded as prominent in the first rank of that class of writers—Richardson, Fielding, Smollett, Sterne, and Goldsmith. Richardson, famous for three novels, "Clarissa Harlowe," "Pamela," and "Sir Charles Grandison," remarkable for the author's minute dissection of the emotions and sentiments of the female breast when under the influence of passion. Fielding, whose chief work, "Tom Jones," is filled with striking pictures of the English life of the period of every grade, and abounds in touches of satire and of humour. Smollett, whose fame chiefly depends on his "Roderick Random," "Peregrine Pickle," and "Count Fathom," and who sought to excite the reader's interest by the display of eccentric characters, and a display of abundant but frequently very coarse humour. Sterne, who in his "Tristram Shandy" used the form of the novel merely as a means of pouring forth a flood of humour, sometimes brilliant and some-

times pathetic; and Goldsmith, whose "Vicar of Wakefield" is wonderfully true to life in every or any age. In spite, however, of the well-deserved fame of these great novelists and their imitators or followers, the latter portion of the 18th century witnessed a revival, with certain modifications, of the old taste for romance, first excited, probably, by Horace Walpole's "Castle of Otranto," and gratified during a considerable period by Mrs. Radcliffe, who carried the new species of romance-writing to as great perfection, perhaps, as it is within its nature to attain. The reign of this romantic school may be said to have lasted about fifty years, from 1770 to 1820. Concurrently with, however, and in every way superior to such fictions, appeared the works of novelists, of whom we may mention as famous examples, Godwin, Miss Burney, and Miss Edgeworth. Godwin, who was one of the first to make the novel the means of enforcing abstract principles, and who, in his most famous novel, "Caleb Williams," avowed that its object was "to furnish a general review of the modes of domestic and unrecorded despotism by which man becomes the destroyer of man;" Miss Burney, whose novels are bright pictures of the more prominent characteristics of middle life and "good society" in the latter half of the 18th century; and Miss Edgeworth, whose novels are so many moral lessons, rendered in the highest degree acceptable by powers of humour, and a knowledge of human nature, which are seldom at fault. In 1814, Sir Walter Scott commenced the publication of his so-called Waverley Novels, and gave a wide extension to the prose form of fiction, and established the modern historical novel. (See WAVERLEY NOVELS.) These brilliant masterpieces of fiction were followed by the productions of Bulwer, who essayed with more or less success almost every style of fiction, humorous, sentimental, and historical, echoing Sterne, Scott, and other great writers, with a touch of high-flown, mystical, æsthetic sentiment peculiarly his own; G. P. R. James, who cultivated historical fiction; Theodore Hook and others, who sketched "society;" Miss Austin, whose merits as a painter of the scenes of ordinary life have been extolled by Scott and Macaulay; and Beckford, whose "Vathek" is almost unrivalled for its Oriental luxuriance of imagination and splendid diction. A new era was marked in 1836 by the appearance of "Pickwick," in which Charles Dickens revealed himself as a successor and more than equal of Fielding and Smollett in the richest humour, in conjunction with a pathetic and tragic power to which those writers were strangers. Thackeray, more original, and, in some respects, more powerful, followed; Benjamin Disraeli, brilliant, witty, oracular, personal, and satirical, gifted with no ordinary imaginative power, may be said to have originated the political novel—pictures of English public life seen under the influence of an Oriental glamour. Ainsworth found heroes in highwaymen and burglars (in which peculiar taste he had been anticipated by Bulwer in "Paul Clifford"), and historical novels of a sensational and not very authentic kind; and Lever, in his Irish and military stories, displayed a continuous flow of animal spirits and extravagant humour unequalled, perhaps, by any other writer. The name of modern English novelists is legion. Trollope, the Brontës, Black, Hardy, Mrs. Gaskell, Charles Reade, Wilkie Collins, Kingsley, Miss Braddon, Mrs. Wood, Mrs. Oliphant,

are conspicuous names; but greatest of all the writers of fiction of the last quarter of a century is "George Eliot" (the *nom de plume* adopted by Marian Evans), whose works exhibit powers of pathos, humour, insight into human nature, sympathy, and intellectual force, which entitle her to rank with the leading writers of fiction of all times. Foreign fiction is glanced at under various headings. (See ROMANCES.)

NOVEMBER, *no-ven'-ber* (Lat., *novem*, nine).—The month so called from being the ninth in order of the months when the Roman Calendar was first formed. It is the eleventh of our year. It consisted originally of thirty days, afterwards of twenty-nine and thirty-one, but was restored by Augustus to its original number. The early Saxons called this *blot-month* (the blood month), as at this season they sacrificed many animals to their gods, and also killed many as a provision for the ensuing winter.

NUMBER, *num'-ber* (Lat., *numerus*, Fr., *nombre*).—In Grammar, the difference of termination or form of a word, to express unity or plurality. The termination which denotes one or an individual, as in the *singular number*; the termination that denotes two or more individuals or units constitutes the *plural number*. Hence, we say a noun, an adjective, a pronoun, or a verb, is in the *singular* or *plural* number.

NUMBERS, *num'-berz* (Lat., *numerus*).—Units considered in reference to other units, as in counting, or performing the mathematical operations of addition, multiplication, &c. According to Sir Isaac Newton, a *number* is the abstract ratio of one quantity to another quantity of the same species; and, consequently, there are three different sorts: as *integers*, or *whole numbers*; *fractions* of *uneven numbers*; and *surd*s, or *irrational quantities*. (See various headings). *Cardinal* numbers are such as consider the number of units, as 1, 2, 3; while *ordinal*s consider their position, as 1st, 2nd, and 3rd. A *compound* number is such as can be divided by some other number besides unity. A *rational* number is one which can be measured by unity, as an *irrational* one is the reverse. *Prime* numbers are such as are only divisible by unity, as 3, 5, 7, 11, &c. *Perfect* numbers are those the sum of whose aliquot parts added together forms the whole number. A *square* number is one which is multiplied into itself, as 9, which is the square of 3; while a *cubic* number is one which is multiplied twice into itself, as 27 is the cube of 3, which equals $3 \times 3 \times 3$. As the *theory of numbers* is usually contained in most elementary treatises on algebra, it need not be entered into in the present article. Suffice it to say that it owes its perfection to Diophantus, who lived in the 3rd century; to Vieta, Bachet, and Fermat, of the 16th; and to the essays of Euler, Legendre, and Newton, of a later era. (For numeral characters, see NOTATION.)

NUMERALS, *nu'-me-rals*.—The general name given to figures or symbols by which numbers are expressed. The Arabic numerals, 1, 2, &c., were not generally introduced into this country till early in the 17th century.

NUMERATION, *nu-me-rai'-shun* (Lat., *numeratio*).—The art of classing numbers together and expressing them properly according to the general principles of notation. The method of counting by ten no doubt owes its

origin to the custom adopted by savage tribes of reckoning on their fingers. (See NOTATION and NUMBERS.)

NUMISMATICS, *nu-miz-mat'-iks* (Gr., *nomisma*; Lat., *nummus*, a coin or medal).—That science which has for its object the study of ancient and modern coins and medals. *Coins* are pieces of metal on which different marks have been impressed by public authority, to indicate their weight and value, in order to make them a convenient medium of exchange. *Medals* are pieces of metal similar to coin, not intended as a medium of exchange, but merely struck to commemorate some important event. The science of numismatics has the same divisions as history. Ancient numismatics extend to the fall of the Western empire; the numismatics of the Middle Ages commence with Charlemagne; and modern numismatics with the revival of learning. As a science, numismatics appears to have been entirely unknown to the ancients. The first treatise on the subject was published by a Spaniard, Antonio Agostino, in 1577. As the researches into the different branches of the subject became more extensive, more attention was paid to this matter, and many learned works on the subject have

been written, and most extensive and valuable alterations made.

NEWHAM COLLEGE.—A college for lady students at Cambridge, established in 1875, in connection with Girton College. (See GIRTON COLLEGE.)

NURSE.—An attendant on the sick. There are now a large number of good women who devote themselves to the work of nursing in hospitals and in connection with the army, followers of Florence Nightingale, who organized a staff of nurses who were of the greatest value at the time of the Crimean War.

NYMPHS, *nimfs*.—In the Greek mythology, female divinities, dwelling in the sea, fountains, streams, grottoes, and other places. They were represented as beautiful virgins, and supposed to have sympathy with human emotions and the love for the beautiful in nature. They were divided into groups: as the Oceanides, nymphs of the ocean; Nereids, limited to the Mediterranean; Naiads, of lakes, brooks, and fountains; Oseades, of the mountains; and Dryads, or Hamadryads, dwellers in trees, on the perishing of which they died.

O.

O, the fourth vowel and the fifteenth letter in the English alphabet. In the English language, an *o* is often written where the sound of *u* is heard, as *one, dove, come, some*, &c. There are no less than four sounds designated in the English language by the letter *o*: these are exemplified in the words *go, prove, once, not*. Amongst the French, the sound of *o* (as pronounced in *go*) is indicated by various signs. The Germans have a long and a short *o*; and the Italians a close and an open *o*. Amongst the Greeks there were two different signs for the long and the short *o*: the *o* (*omicron*, or short *o*), and *ω* (*omega*, or long *o*). The use of the vowel *o* is next to that of *a*; it is employed to express admiration, pity, imploring, warning, &c. In Latin inscriptions, *O* signifies *optimus*, as D.O.M.,—Deo Optimo Maximo. As a numeral, *O* signified 70 among the Greeks; in middle Latin it signified 11; and with a dash over it, 11,000.

O'.—A prefix to many Irish family names, indicating descent, and equivalent to Mac, prefixed to Gaelic names. It is probably derived from the Irish *ua*, a grandson.

OBELISK, *ob'-e-lisk* (Lat., *obeliscus*), a quadrangular pyramid, very slender and very high, erected as a monument in some public place or to show some stone of extraordinary size. Obelisks are frequently covered with inscriptions or hieroglyphics. Amongst the Egyptians, obelisks were called by the priests the *sun's fingers*, because they served as indexes to mark the hours on the ground. Cleopatra's Needle, the popular name of the obelisk recently brought to this country and erected on the Thames Embankment, is a good specimen of the Egyptian obelisk.

OBELUS, *ob'-e-lus*, (Gr., *obelos*, a spit).—A little line or stroke, like a needle, by which a spurious word or passage was noted in a manuscript.

OBBERON, *o'-ber-on* (Ger., *Alberich*, or *Alberon*).—In old romances the king of the elves

or fairies. Chaucer, Spenser, and other English poets refer to Oberon, but the name is best known in connection with Shakespeare's *Midsummer Night's Dream*.

OBJECTIVE CASE, *ob-jek'-tiv*.—In Grammar, the case in which the object of an action is put, that is to say, that on arriving at which the action of a verb or preposition is complete and exhausted. It generally answers to the Latin accusative.

OBLIGATO, *ob-le-ga'-to* (Ital.).—All voices or instruments which are indispensable to the just performance of a piece of music. An instrument is sometimes *obligato* throughout a piece, in which case it would be called a *concerto* for that instrument; but when an instrument is only *obligato* in certain parts, these parts are termed *obligato* or *solo* passages.

OBOE. (See HAUTOBOY.)

OBOLUS, a small Grecian coin, so named either because it bore an impression similar to a spit, as some think, or because it was in the form of one; those, however, now in the cabinets of antiquaries are round. The obolus, which was coined in silver, brass, and copper, is generally supposed to have been worth about $\frac{1}{48}$ d.; but there is reason to suppose that its value varied at different periods.

OBVERSE, *ob'-vers*.—The face of a medal or coin, the side on which the principal device is placed.

OCTAVE, *ok'-taiv* (Lat., *octavus*).—In Music, an harmonical interval consisting of seven degrees or twelve semitones, containing the whole diatonic scale; thus forming a complete system or series of sounds, which can only be extended by repeating the same order in a second octave, and again in a third, and so on, as high or as low as the compass of the voice or instruments will

allow. The term is also applied to the eighth note itself as well as to the interval.

ODE, *ode* (Gr., *ode*, a song).—A short poetical composition proper to be set to music or sung, which was first introduced in what is considered as the second period of Grecian poetry—that which succeeded the Homeric or epic period. In the earliest period of a national poetry, we can discover but few, if any, peculiarities of thinking or feeling, whilst in the subsequent periods the poet's compositions are, more or less, stamped with the mark of his own character; and this is especially the case with respect to the ode, which is a form of poetry especially suited to the expression of the most passionate or the most tender sentiments. As the effects of music upon the mind are chiefly to raise it above its ordinary state, and fill it with high, enthusiastic emotions, or to soothe and melt it into pleasurable feelings, so the ode, which originally was composed with the express purpose of being sung to music, retains that plasticity of character which is music's great charm.

OFFERINGS, *of'-fer-ings*.—A principal part of the religious service of all the nations of antiquity consisted in offerings to a Divine being, from a feeling of dependence upon him and a desire to propitiate his favour: Among the ancient Hebrews, offerings were of several kinds; some being freewill, others by obligation. The first fruits, the tenths, the sin-offerings, were of obligation; the peace-offerings, vows, offerings of wine, oil, bread, and other things made to the temple, or to the ministers of Jehovah, were offerings of devotion. Sacrifices were not commonly included under the name of offerings. In the Christian Church, offerings were at first voluntary, but came afterwards by custom to be obligatory. In England they are payable by custom to the parson or vicar of the parish, either occasionally, as at sacraments, marriages, christenings, churchings of women, burials, &c.; or at fixed times, as at Easter, Christmas, &c. The four offering-days enjoined by Convocation (1537), in the Church of England, were Christmas-day, St. John Baptist's day, St. Michael's day, Easter-day.

OGHAMS, *og'-hams*.—The letters or signs of a secret alphabet in use ages ago among the Celtic nations. Ogham inscriptions may still be seen on ancient stones in Wales, Ireland, and Scotland. The characters are lines, or groups of lines, placed on a single stem or chief line, either in a straight or oblique position. About 80 different forms of the alphabet are known. The inscriptions generally read from the bottom upwards. There are considerable difficulties in the way of deciphering these inscriptions correctly, notwithstanding the indefatigable efforts of scholars. An adaptation of the Ogham alphabet is said to have been used as a cipher by Charles I.

OGRE, *o'-gr*.—A species of fantastic monster disposed to feed on human flesh, probably derived from an Asiatic horde called *Ogurs*, which invaded Europe about the middle of the 5th century. The word has been handed down from generation to generation as descriptive of the terrible monsters figuring in fairy tales.

OGULNIAN LAW, *o-gul'-ne-an*.—A law established in Rome, 300 B.C., by the tribunes Q. and Cn. Ogulnius, by which the number of the pontiffs was increased, and plebeians made eligible for the offices.

OLIVETANS, *ol'-iv-e-tans*.—A religious order of the Roman Catholic Church, known also as the Brethren of Our Lady of Mount Olivet, an offshoot of the Benedictine Order, originating with John Tolomei, professor of philosophy in the University of Siena, early in the 14th century, who had been afflicted with blindness, but recovered his sight by what he believed to be a miraculous interposition. In company with a few friends, he retired to a solitary place near Siena, and devoted himself to a religious life. By order of the pope the Benedictine rule was adopted, and the Society rapidly increased in numbers. Tolomei was appointed general in 1319; and in course of time the brethren possessed 80 houses in different parts of Italy. They devoted themselves especially to the study of theology and the work of teaching, and many distinguished ecclesiastics were trained in their schools. Now there are only four establishments of the Olivetans.

OLLA-PODRIDA, *ol'-la-pod-ré-da*.—The name given by the Spanish to a favourite dish made by stewing different kinds of meat and vegetables together. The name literally means "putrid pot," and was originally applied to scraps of food boiled up and made soup.

In Literature, the name is frequently given to a miscellany the contributions to which are of a varied character.

OLYMPIAD, *o-lim'-pe-ad* (Gr., *Olympias*).—The period of four years which elapsed between the celebration of the Olympic games was called an Olympiad, and gradually became a celebrated era among the Greeks, who computed their time by it. The custom of reckoning by Olympiads was first established, it is supposed, with reference to the Olympic games, which were celebrated 776 years before the Christian era, and the computations by them ceased after the 304th, in the year 440 of the Christian era. As the games were celebrated at the time of the full moon next after the summer solstice, and as the time of the full moon differs eleven days every year, the Olympiads were of unequal lengths.

OMPHALEA, *om-fai'-le-a* (from Gr., *omphalos*, the naval, from the remarkable umbilicated form of the seed-cases).—A genus of the natural order *Euphorbiaceæ*. The only remarkable species is *O. triandra*, the juice of which is sometimes employed in Guiana as a substitute for black ink.

OPAL, *o'-pal* (Lat., *opalus* or *opalum*).—A precious stone, consisting principally of silica, with a small admixture of alumina; much valued as a gem, from the beautiful play of colours it exhibits, caused by an infinite number of minute pores or fissures existing in its mass. The finest kind is known as Precious, or Oriental Opal. The most valuable known to be in existence is in the Imperial Cabinet at Vienna. It measures five inches by two and a half. The finest stones of this kind are found in Hungary.

Wood Opal is a putrification exhibiting the form and structure of wood, the place of which has been taken by siliceous mineral.

Prime d'Opal is clay-porphry, or other stone containing many small grains of opal, which is cut into slabs and used for making ornamental articles.

OPERA, *op'-e-ra* (Ital., Sp., Fr., from Lat., *opera*, work, labour).—A species of musical drama containing airs, recitatives, choruses, &c.,

invented by Rinuccini, a Florentine, about the end of the 16th century. Many great musicians have distinguished themselves as composers of operas, among them Purcell, Arne, Handel, Mozart, Gluck, Cherubini, Rossini, Meyerbeer, Auber, Donizetti, Spohr, Weber, Beethoven, Balfe, Benedict, Verdi, Gounod, and Wagner. (See MUSIC.) The first opera ever published, so far as is known, was *L'Orfeo*, composed by Monteverdi, and performed in Paris in 1607. About 1669, the Abbé Perron obtained a grant from Louis XIV. to set up an opera in Paris. In 1684 a species of opera was introduced into London by Sir William Davenant; but the first regular work of the kind was produced in 1692, at York Buildings; and in 1705, the first opera at Drury Lane Theatre was performed. In 1711, Handel's *Rinaldo* was produced, after some difficulty in breaking through existing restrictions, at the Haymarket. In Italian opera, the dialogue necessary to carry on the plot of the drama is in *recitative*, set to music; and in that way the composer completes the conditions of musical dramatic composition, and the audience are presumed to be listening to dramatic characters, whose natural speech is in accordance with the laws of musical composition. In English opera, the practice has generally been to carry on the action of the drama by ordinary dialogue, and introduce solos, concerted pieces, and choruses, the effect being incongruous. In opera, musical throughout, melodies and harmonies appear to spring naturally out of the musical speech of the dialogue; but in English opera, after long conversations or soliloquies in the ordinary speaking tones, the characters seem to be suddenly inspired with the idea that a song, duet, or trio, would be appropriate. The so-called operas, very charming in their musical features, by Shield, Bishop, Balfe, Wallace, Macfarren, and others, are of this kind; and the "ballad operas" once so popular, were, indeed, comedies or farces, with songs interpolated to display the powers of the singers engaged. Comic opera—sometimes pure farce, sometimes broad burlesque—has been brilliantly treated by Auber, Offenbach, Lecocq, and others. A burlesque style of opera of a peculiar kind has, within the last few years, attained enormous popularity, owing to the whimsical, satirical *libretti* by Gilbert, and the charming music composed by Arthur Sullivan.

OPHICLEIDE, *of'-ik-lide* (Gr., *ophis*, serpent; *kleis*, a key).—A musical instrument invented about 1849, and intended to supersede the serpent. It consists of a conical tube, terminating in a bell, like the horn. In this tube are ten holes, all of which are stopped by keys. It has a mouthpiece exactly like that of the serpent, and its compass is from B, the third space below, to C, the fifth additional space above the staff. The instrument is of great value in an orchestra for maintaining the lower part of masses of harmony.

OPINICUS, *o-pin'-i-kus*.—In Heraldry, a fabulous monster, with the head and neck of an eagle, the body of a lion, and wings. It was the crest adopted by the London company of barber-surgeons.

OR, *or* (Fr., gold).—In Heraldry, a term by which gold is meant. In engraving, it is denoted by small dots all over the field or bearing.

ORATORIO, *or-a-to'-re-o* (Ital.), a kind of musical drama, consisting of airs, recitatives, duets, trios, choruses, &c. The text is usually

derived from some Scriptural subject, as, for instance, that of the "Messiah," of the "Creation," and of "Elijah." The origin of the oratorio is somewhat obscure. The most probable account is that which attributes its invention to St. Philip Neri, who, in 1540, organized, at the new chapel at Rome, certain musical performances, consisting of poems on sacred subjects, sung by first-rate singers, accompanied by the best instrumentalists, for the purpose of attracting large congregations, and of creating a zeal for religion. The Germans excel in this species of composition: as a proof of this, it is only necessary to mention the names of S. Bach, Haydn, Beethoven, Mozart, Mendelssohn, Spohr, and, greatest of all, Handel. The oratorio was introduced into this country by the last mentioned composer in 1720, and soon became very popular, and continued until after the death of Handel to be firmly established. The most famous of all oratorios is Handel's *Messiah*, produced in 1741, and still regarded as the masterpiece of composition of this kind. The same composer's *Israel in Egypt* (renowned for its wonderful choruses), and *Judas Maccabeus* are also prominent features at most of our great musical celebrations. Among other famous compositions in this style, ranking as productions of the highest musical genius, are Haydn's *Creation*, Beethoven's *Mount of Olives*, Spohr's *Last Judgment*, and Mendelssohn's *Elijah*. Costa, Sterndale Bennett, Benedict, Macfarren, and other modern musicians have produced great works in this style.

ORATORY.—A term which, in its primary and etymological signification, has reference to public speaking. Successful oratory requires a considerable acquaintance with human nature and soundness of understanding; and, in its higher degrees, strong sensibility of mind, a warm and lively imagination, joined to correctness of judgment, and an extensive command of the power of language. It has been frequently remarked how very few great orators the world has produced. For one great orator we have had hundreds of poets, philosophers, and men of science. The reason apparently is, that in this art a combination of a variety of endowments is required, such as are rarely to be met with in one person. Foremost among the orators of antiquity stand the names of Demosthenes and Cicero. To which of these masters the palm of superiority is to be assigned is by no means agreed. Each excelled the other in his own particular style: Demosthenes in fire and impetuosity, and power of agitating the fiercest passions in the human breast; Cicero in art and polish, gently and artfully carrying conviction to the mind. Modern eloquence has been distinguished as that of the senate or popular assemblies, the bar, and the pulpit; and in each department, the public men of this country have supplied brilliant examples. Of works on oratory, that of Aristotle is the earliest, and also the best and most systematic of those which the ancients have left to us. That of Cicero is most pleasant and interesting; but, though abounding with excellent practical remarks, it is discursive and deficient in regularity, and hence unsatisfactory to the practical student. The "Institutions" of Quintilian is a philosophical and systematic production; but he has extended to an extravagant degree the province of his art, so that the greater part of his work is a treatise

on the general subject of education. "Every speech," says Campbell, "is intended to enlighten the understanding, to please the imagination, to move the passions, or to influence the will." When a speaker addresses himself to the understanding, he proposes the instruction of his hearers, and that either by explaining some doctrine unknown or not sufficiently comprehended by them, or by proving some position disbelieved or doubted by them. The imagination is addressed by exhibiting to it a lively and beautiful representation of a suitable object; the merit of the work consisting in the dignity, as well of the subject or thing imitated as in the manner of the imitation, and resemblance in the portrait or performance. But in the third species of discourse, the ultimate object of the orator is not to astonish by the loftiness of his images, or delight by the beautiful resemblance which his painting bears to nature, but to appeal to the passions and emotions of the heart. Most complex of all, is that style of oratory which is calculated to influence the will and persuade to a certain line of conduct. It is, in reality, an artful mixture of that which proposes to convince the judgment and that which interests the passions,—the argumentative and the pathetic incorporated together. The following rules are laid down by Whately, to be observed in the use of arguments:—(1) To consider whether the principal object of the discourse be to give satisfaction to a candid mind, and convey instruction to those who are ready to receive it, or to compel the assent, or silence the objections, of an opponent. (2) Matters of opinion are established principally by antecedent-probability (arguments from cause to effect), though the testimony of wise men is also admissible; past facts, chiefly by signs of various kinds; and future events, by antecedent-probabilities and examples. (3) When arguments of each of the two formerly-mentioned classes are employed, those from cause to effect (antecedent-probability) have usually the precedence. (4) A proposition that is well known should in general be stated at once, and the proofs subjoined; but otherwise, it is usually better to state the arguments first, or, at least, some of them, and then introduce the conclusion. (5) If the argument *à priori* has been introduced in the proof of the main proposition in question, there will generally be no need afterwards of educing causes to account for the truth established; on the other hand, it will often be advisable to do this when arguments of the other class have alone been employed. (6) Refutation of objections should generally be placed in the midst of other arguments, but nearer the beginning than the end. (7) The arguments which should be placed first in order are those which are the most obvious, and such as naturally first occur. Persuasion, properly so called—that is, the art of influencing the will—requires (1) that the proposed object should appear desirable, and (2) that the means suggested should be proved to be conducive to the attainment of that object. On the general subject of persuasion, it is important to observe, in an address to any passion, sentiment, feeling, &c., that it should not be introduced plainly or avowedly as such, otherwise the effect may be in a great measure lost. In order to excite the feelings, it is also necessary to employ some copiousness of detail, and to dwell somewhat at large on the several circumstances of the case, being careful at the same time not to weary the hearer with too long a

description. Comparison is a powerful means of exciting or heightening any emotion; and the tone of feeling manifested by the speaker himself has a great effect in exciting the same feeling in the minds of his hearers.

ORCHESTRA, *or'-kes-tra* (Gr., *orchestra*, from *orcheisthai*, to dance).—In the ancient Greek theatre the orchestra was that part in which the chorus was situated, and where the dances were performed. At the present day, the term is applied to that part of the theatre in which the instrumental band is placed, and that portion of a concert-room which is allotted to the performers, both instrumental and vocal. The largest orchestra in the world is that at the Crystal Palace, constructed for the performances connected with the Handel Festivals. (See CRYSTAL PALACE.) Sometimes the term orchestra is used to designate the instrumental performers. In some of the more recently-constructed theatres, the orchestra is so placed as not to be seen by the audience.

Orchestration.—The art of allotting to each instrument in an orchestra its proper part, so as to give the proper effect to a piece of music.

ORDER, *or'-der* (Lat., *ordo*; Fr., *ordre*).—In Natural History, is the subdivision of a class, orders being further divided into genera, which are again subdivided into species.

In Architecture. (See ARCHITECTURE.)

In Botany, a division of a *Class*, comprising genera varying in some respects from each other, but having the essential characters of the group.

In Chivalry, associations of noble and eminent persons, who wear special robes and decorations as marks of honour conferred by the Sovereign. (See GARTER, ORDER OF, and other headings.)

ORDINAL NUMBERS. (See NUMBERS.)

ORDINARY, *or'-di-na-re*.—In Heraldry, a portion of the escutcheon comprised between straight and other lines. It is the simplest species of charge, and many of the oldest escutcheons contain no other bearing. An ordinary bounded by serrated lines is said to be *indented*; by undulating lines, *nebuly* or *wavy*. Many other terms are used; as, *ingrailed*, *invected*, *raguly*, *embattled*, *angled*, *levelled*, *escartely*, &c.

ORDNANCE, *ord'-nants*.—A military term, applied generally to the great artillery which is used in war, as cannons, mortars, howitzers, carronades, &c. It is probable that the name was derived from the *compagnies d'ordonnance*, or franks archers, instituted by Charles VII. of France, in 1448. (See ARTILLERY.)

ORDNANCE SURVEY.—The geographical and topographical survey of Great Britain, undertaken by the military authorities and generally performed by officers and trained men of the Engineers, for the purpose of obtaining correct maps. The first map of this kind was delineated after the Scottish rebellion of 1745, on the scale of an inch and three-quarters to a mile. The maps of the country generally are now engraved on two scales, one inch and six inches to the mile; and plans of towns on a very much larger scale, in some instances nearly 127 inches to the mile. Similar surveys have been undertaken by most of the European governments, and the maps published. A very accurate trigonometrical survey of India has just been completed, after nearly 80 years of careful labour; and the United States have undertaken a coast survey.

ORGANON, *or'-ga-non* (Gr., method).—A body of rules or canons drawn up to guide in the investigation of truth. The two best known works of this class are the *Organon* of Aristotle, and the *Novum Organon* of Bacon. (See **ARISTOTELIAN** and **BACONIAN PHILOSOPHY**.)

ORGIES, *or'-jez* (Gr., *orgia*, secret rites).—Customs connected with the worship of some of the deities and semi-deities of the Greek mythology, especially Ceres and Bacchus. The exact nature of the rites were known only to the initiated, but it is certain they were accompanied by great licentiousness; and the term "orgy" is now used as descriptive of a scene of drunkenness and debauchery.

ORIEL COLLEGE, OXFORD, *o'-ri-el*.—This college was founded in 1324 by Adam de Brom, almoner of Edward II., under a charter of incorporation granted by that king, and named St. Mary's House. The collegiate establishment consisted originally of a provost and 10 fellows. It is uncertain when the name Oriel College was adopted. There are now 18 fellows, five in holy orders. There are 10 scholarships, two of which at least are awarded every year; and they are open to all persons under the age of twenty, but if already members of the University they must not have exceeded two years from their matriculation. The scholarships, which are of the annual value of £80, are tenable for five years. There are also 16 exhibitions, varying in annual value from £80 to £21, and two clerkships, with from £70 to £80 yearly. The college has 13 benefices in its gift.

ORIEL WINDOW, (old French *oriel*, corridor).—A projecting window, generally divided into bays (see **BAY WINDOW**). A window of this kind, forming a spacious recess in an apartment, adds greatly to the picturesque effect of medieval and Elizabethan architecture.

ORIENTATION, *o'-ri-en-ta'-shun*.—The term applied to the deviation from the true east observed in the position of many churches supposed to have been built in conformity with the ancient ecclesiastical custom of building churches on such a place that worshippers, when facing the altar, should look toward the east. In many old churches there is a slight deviation in the line of the building from the east and west, and much ingenuity has been expended in inventing explanations of the fact; but most probably the builders came as near correctness as they conveniently could without taking much trouble in the matter.

ORIFLAMME, *or'-e-flam* (Lat., *auri, flamma*, flame of gold).—It was formerly the custom for all Catholic churches of any note to possess a flag or banner; and the one belonging to the Abbey of St. Denis was called the *oriflamme*, from its colour, being a piece of red taffeta fixed on a golden spear, and cut into three points, each of which was adorned with a tassel of green silk. When Louis le Gros marched against the Emperor Henry V. in 1224, he took this banner to accompany him in his expedition; and from that time, during nearly three centuries, the French monarchs were in the habit, on the commencement of a war, of receiving this banner with great ceremony from the hands of the abbot of St. Denis, to whom, at the conclusion of hostilities, it was returned. In later times, the oriflamme became the insignia of the French infantry.

ORLE AND TRESSURE, *orl, tres'-sure* (Fr.).—In Heraldry, orle is one of the ordinaries, and is composed of one or two lines passing through the shield. The *tressure* is usually considered to be half the breadth of the orle, and is generally borne double, and what is called *fleury* and *counter-fleury*, as in the royal achievement of Scotland.

ORNAMENTAL DRAWING.—The art of designing ornaments, constructed on geometrical principles for mural, floor, ceiling, and other decorations, and for various purposes of ornamentation connected with the arts.

ORNAMENTATION, *or-na-men-ta'-shun*.—In Architecture, decorative features added to the constructive features for the purpose of making them more pleasing to the eye; the adaption of the orders of architecture, more or less complex, were successful efforts in this direction. A fundamental principle is that the added ornamentation should be appropriate to the use of the constructive features. The material employed must also be taken into consideration, some ornaments, for instance as tracery and leaf-work, being possible in iron, but not to be produced in stone. The ornamentation adapted in the earliest forms of architecture, as the Assyrian, Egyptian, and Hindoo, being symbolical rather than artistic, had little relation to constructive features, and is consequently inartistic in the modern sense of the word. In decoration, if ornamental objects such as flowers are copied exactly, the general effect would appear confused, and the demand for symmetry natural to correct taste would not be met. Conventional forms are, therefore, adapted—that is, ornaments constructed in accordance with the general principles of form of the natural object, without imitating all the variety and irregularities, beautiful in nature but confusing in art.

ORPHIC LITERATURE, *or'-fic*.—Fragments of early Greek poetry, traditionally represented to have been composed by Orpheus, a son of Apollo and the muse Calliope, and consisting chiefly of hymns and songs used in the celebration of the festivals of Dionysius. These fragments were first collected about 500 B.C., by the Pisistratidæ, and being added to by many writers, grew into a vast collection of poems chanted by the priests at public celebrations, sung at the games, and adapted to dramatic purposes. The fathers of the early Christian Church believed that in this Orphic literature they found the first sources of the Greek religion. It is now settled by the best critics that the great bulk of the so-called Orphic poems were really composed in the 3rd and 4th centuries of the Christian era, there being some fragments of unknown antiquity. Of some of the poems referred to by old writers, the names only survive. There are several English translations of the known portions.

ORTHOEPEY, *or-tho'-e-pe* (Gr., *orthos*, right; *epos*, a word).—That part of prosody which treats of the manner of uttering words with correct pronunciation.

ORTHOGRAPHY, *or-thog'-ra-fe* (Gr., *orthos*, and *grapho*, I write).—That part of grammar which teaches the natures and properties of letters and the correct method of spelling words. In no department of grammar has greater irregularity prevailed. In our own language, some of the written characters have so

many different sounds, that when spoken language came to be written, there was great uncertainty as to the proper letters to be used. As a modern writer remarks, "The breaking up of the Anglo-Saxon in its translation into modern English, brought necessarily a period of orthographic chaos. Never was the lawlessness greater than during one of the highest periods of the literature, namely, the Elizabethan period. Then, and for a long time after, all perception of the real powers of the letters seems to have been lost, and nothing but caprice ruled. Not only were words spelled differently by different persons, but even among the best educated classes the same person would spell the same word (even his or her own name) half-a-dozen ways in the same page." A result of this may be seen (to take one instance only) in the discussions which have arisen as to the proper orthography of the name of our greatest poet, a difficulty not at all settled by reference to his known autographs, which exhibit the variety fashionable in his day, different editors finding authority for Shakespeare, Shakspear, Shakspeare, and other modes of spelling. The writers of the early part of the 18th century, Addison and others, established some degree of uniformity, and a further step was taken by the Dictionary makers; but even Johnson's orthography, in his great work, exhibits many peculiarities now obsolete. The final "k" in such words as "music" and "physic" has long been abandoned; but there is still a diversity of practice as to the use of "u" in "honour," "humour," "colour," and similar words. Whether "chymist" or "chemist" is correct is to a great extent a matter of taste; and the *Times* newspaper stands almost alone in using the form "jewellery," instead of the more common "jewelry;" and the letter "z" is almost abolished, except as an initial, by some printers, in favour of "s." Many persons claiming to have received a good education are sadly deficient in the art of spelling properly, even those words in respect of which no difference of opinion exists. Eastern names are presented to us in a most perplexing variety of forms, almost every traveller claiming the right to represent the sound of foreign names by an orthography of his own invention. Recently the Indian Government has authorized a systematic orthography of names of places in the peninsula to be adopted in all public documents and official correspondence; but the ordinary reader, accustomed to the old-fashioned spelling found in standard works, has some difficulty in identifying the places mentioned in the new scheme. Foreigners studying the English language are sadly perplexed by the variety of vowel sounds represented by certain letters and combinations, and the want of rules on the subject. The different pronunciations of the combination "ough" present the most difficult of problems.

ORTHOPÆDIC INSTITUTIONS, *orthopæ-dik* (Gr., *orthos* and *paideia*, training).—The name given to establishments devoted to the cure of deformities, more particularly those of the spine, ribs and pelvis.

OSSIAN'S POEMS. (See **GAELIC LANGUAGE AND LITERATURE**.)

OSTRICH FEATHERS, *os'-tritch*.—In Heraldry, ostrich feathers, drooping, are occasionally borne as a charge, and were a cognizance of the earlier Plantagenets, before the well-known

device of three feathers was adopted by Edward the Black Prince. The present arrangement of the feathers with a prince's coronet was established by Prince Henry, eldest son of James I.

OUTPOSTS, *out'-posts*.—In Military language, small bodies of troops stationed in advance of the main body, for the purpose of watching the movements of an enemy, and giving timely notice of a threatened advance.

OUTWORKS, *out'-works*.—All the works of a fortress which are constructed outside the principal wall, within or beyond the principal ditch. Their purpose is to obstruct the attack upon the principal wall, to intercept the shot against the same, and to afford a lateral defence.

OVATION, *o-val'-shun* (Lat., *ovis*, a sheep).—An inferior sort of triumph which was granted by the ancient Romans to distinguished military leaders. It was distinguished from the more imposing solemnity (*see* **TRIUMPH**) by, among other incidents, the sacrifice of a sheep, and not of a bull. The ceremony evidently derived its name from that of the victim sacrificed on the occasion. An ovation was granted when the advantage gained was considerable, but not sufficient to constitute a legitimate claim to the higher distinction of a triumph.

OVERTURE, *o'-vert-yure*.—An introductory symphony to an opera or oratorio, or a kind of musical prologue in keeping with the piece which it ushers in. This species of composition is said to have been originated in France, where it was afterwards perfected by Lulli. Modern overtures are formed upon the subject of the opera, and generally contain snatches from the leading airs. The Germans have composed overtures to poetical works: as Beethoven's overture to Goethe's "Egmont." They are often played separately from the piece to which they belong.

OVOLO, *o'-vo-lo*.—A convex moulding employed in classic architecture: in the Roman style forming the exact quarter of a circle, but in Greek architecture, having a sharper curve at the top.

OWEN'S COLLEGE. (See **VICTORIA UNIVERSITY**.)

OXFORD MARBLES. (See **ARUNDELIAN MARBLES**.)

OXFORD UNIVERSITY, *oks'-ford*.—One of the two most ancient and famous of England's seats of learning. There is no satisfactory evidence in favour of the general belief that this university was founded by Alfred the Great; but Pope Martin II., in a deed dated 802, mentions the academy at Oxford as "an ancient institution," but it is well established that Oxford was a place of study in the time of Edward the Confessor (1041-66). In 1201, Oxford is said to have contained no fewer than 3,000 scholars. In 1244, Henry III. granted to the university of Oxford the first charter of privileges as a corporate body; and in 1255 confirmed and extended the privileges which he had formerly conferred. Previous to this period, the scholars and students lived in halls rented from the townsmen; and this was one great source of the numerous quarrels that were constantly taking place between them. To remedy this evil, and to encourage learning, several public-spirited individuals purchased or built large houses for the reception of teachers and scholars;

and thus originated the English colleges. Walter de Merton, founder of Merton College, may be considered to have originated the existing collegiate system. Additional charters and privileges were granted by Edward I., II., and III., and succeeding monarchs. Till the passing of the University Act of 1854, 17 and 18 Vic. c., 81, their privileges depended upon the act of the 13th Elizabeth, 1570, "Concerning the Incorporation of the Universities of Oxford and Cambridge, and the confirmation of the charters, liberties, and privileges granted to either of them." The statutes of the colleges have been revised, and placed more in accordance with the feelings and opinions of the present day. By an Act of Parliament, passed in 1871, University Tests were abolished, the result being that Dissenters from the Established Church, formerly excluded, are now admitted as students.

Constitution and Government of the University.—The University is a body corporate, under the title of "The Chancellor, Masters, and Scholars of the University of Oxford." The governing powers are exercised by four bodies—(1) the *Hebdomadal Council*, which has the initiative in all matters of legislation, and consists of the vice-chancellor, proctors, and 18 elected members; (2) the *House of Convocation*, of which (subject to certain regulations) all persons are members who have taken the degree of Master of Arts or of Doctor of Civil Law or Medicine; (3) the *Congregation of the University*, consisting of the professors, examiners, and other official persons, and of such members of the House of Convocation as reside within the limits of the University for not less than 20 weeks in each year; (4) the *Ancient House of Congregation*, consisting of all Masters of Arts and Doctors of Divinity, Civil Law, and Medicine of less than two years' standing, together with all heads of colleges and halls and certain other official persons. The administration of the University is chiefly in the hands of the chancellor (almost invariably a nobleman of high position, who holds the office as an honour); the vice-chancellor, the practical head of the University; the proctors, who are chosen every year by the colleges and halls according to a certain rotation; and various committees, or "delegacies," appointed from time to time by one or other of the legislative bodies.

Colleges and Halls.—The colleges are corporate institutions, within the university, but distinct from it, founded and endowed for the purpose of assisting students during their residence at the university. The halls differ from the colleges as being neither incorporated nor endowed. They are institutions in which students live together under the charge of a principal, who is responsible for their discipline and instruction. The following is a list of the colleges and halls. (For detailed information see various headings.) University, Balliol, Merton, Exeter, Oriel, Queen's, New, Lincoln, All Souls, Magdalen, Brasenose, Corpus Christi, Christ Church, Trinity, St. John's, Jesus, Wadham, Pembroke, Worcester, Keble. Halls: St. Mary, New Inn, St. Alban, St. Edmund, Charsley's, Hertford. For more than two centuries previous to 1855 no person could be a member of the university unless he were also a member of a college or a hall; but in statutes passed in 1854, 1868, and 1873, considerable alterations were introduced. Any Master of Arts may, subject to certain conditions, obtain a license to open his house as a private hall, in which he can receive students to whom he acts as tutor. Charsley's is a private hall of this character. Any person may now become a member of the university without becoming a member of a college or a hall, provided that he satisfies certain disciplinary requirements. Such persons are known as *unattached students*, and no public provision is made for their instruction, other than that which is open to all members of the university without distinction; but in matters of discipline they are under the control of a Board entitled "The Delegacy of Students not attached to any college or hall." New foundations for the purpose of academical study and education may be admitted, under certain conditions, to enjoy most of the privileges possessed by the existing colleges and halls. Keble College is a foundation of this kind, and differs

from the other colleges chiefly in having as its governing body a council composed of persons who are not necessarily members of the university or engaged in academical pursuits. Two *private halls for lady students* have been recently established. The "Ladies' Hall" is an academical house on the principles of the Church of England, with provision for the liberty of members of other religious bodies. The students are resident under the direction of a lady principal. "Somerville Hall," in which, as it is announced, the life of the students is modelled on that of an English family, and care is taken that the members of different denominations are placed on the same footing. Exhibitions of the yearly value of £25 are open to students.

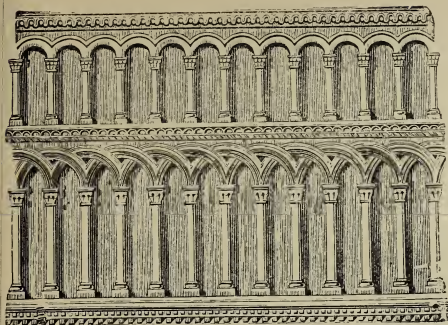
Professors and Tutors.—Almost the whole field of academical study is now covered by public lectures delivered by professors of the following subjects—Greek, Latin, Comparative Philosophy, Moral and Metaphysical Philosophy, Logic, Ancient History, Sanscrit, Natural Philosophy, Geometry, Astronomy, Civil Law, English Law or Jurisprudence, International Law and Diplomacy, Modern History, Political Economy, Indian Law and History, Divinity, Hebrew, Ecclesiastical History, Exegesis, Anatomy and Physiology, Medicine, Zoology, Botany and Rural Economy, Chemistry, Geology, Mineralogy, Experimental Philosophy, Poetry, Fine Art, Music, Anglo-Saxon, Arabic, Chinese, and Celtic; and there are teachers of French, German, Italian, and Spanish; there are, besides, college and private tutors.

Terms and Residence.—The academical year is divided into four terms—Hilary (or Lent), beginning January 14th and ending on the day before Palm Sunday; Easter, beginning on the Wednesday in Easter week and ending on the Friday before Whit Sunday; Trinity (or Act.), beginning on the Saturday before Whit Sunday and ending on the Saturday after the first Sunday in July; and Michaelmas, beginning October 10th and ending December 17th. All residence, to be recognized as such, must take place within the limits of these terms; but as they extend over a period of about 34 weeks, the requirements of the University may be met by a residence of 18 weeks in the year. An undergraduate must reside not only within the limits of the University, but also in one of the recognized places of residence: that is, in a college or a hall, in lodgings licensed by and under the supervision of, the delegates of lodging-houses, or, under special circumstances, in a house not licensed, but within a prescribed limit. Each college and hall has some special regulations on this subject which must be observed.

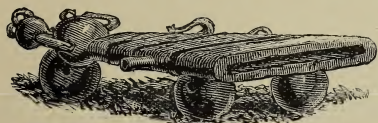
Admission and Matriculation.—A student desiring to enter the University as a member of a college or a hall must apply to the head of the college or hall he has selected. A preliminary examination must be passed, of a character to satisfy the authorities that the candidate is likely to pass the University examination; and some of the colleges require also that he is likely, in addition, to obtain honours in at least one subject. Nearly all the colleges, however, accept the certificate of the Oxford and Cambridge Schools' Examination Board, in place of this matriculation examination. Persons who desire to be admitted to the University without becoming members of a college or a hall must apply to the Delegates of Unattached Students, and pass an examination in Latin, Greek, arithmetic, and Euclid or algebra; but, under certain circumstances, this examination is not insisted on. When a student has fulfilled these requirements, he is eligible to be presented to the vice-chancellor for formal enrolment on the register (*matricula*) of the University.

Examinations.—The First Examination, known as Responsion, is held three times a year, and the subjects are algebra or geometry, arithmetic, Latin, and Greek; and failure in any one subject exposes a candidate to rejection. The First Public Examination (held thrice a year), sometimes known as Moderations (the examiners being styled Moderators), varies according as the candidates do or do not seek honours, in classics and mathematics. The Second Public Examination (twice a year) is conducted by the Public Examiners. This Examination is of a more severe character and extends over additional subjects, including theology, natural science, modern history and jurisprudence.

Degrees.—The University grants degrees in five



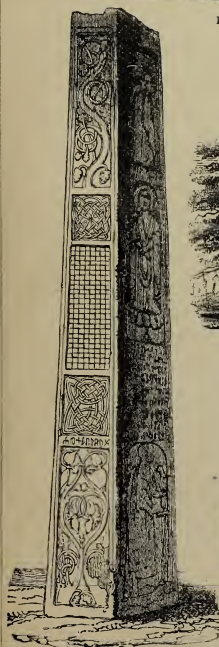
NORMAN ARCHITECTURE—INTERSECTING ARCHES.



PETARD.



PAGODA.



RUNIC PILLAR.



PILLORY.



PANEL.

faculties: Arts, Music, Law, Medicine and Divinity. The three latter are termed "superior" faculties, that is, the recipient must have previously attained a degree in Arts. Degrees in Music do not confer the privileges which are attached to a complete course of study. Candidates for the degree of Bachelor of Arts (B.A.), must have resided for twelve terms within the limits of the University, and must have passed the First and Second Public Examinations. Candidates for the degree of Master of Arts (M.A.) must have taken the degree of Bachelor of Arts, and must have entered on the 27th term from their matriculation. There is no prescribed interval of time between the degrees of Bachelor and Master of Arts, so that a candidate who has attained the requisite standing can take them on the same day. At the expiration of the term in which a Master of Arts has taken his degree, he becomes a "Regent Master," and a member of the House of Convocation. Degrees of Bachelor and Doctor are granted in the faculties of Civil Law, Medicine, Divinity and Music. The degree of Doctor of Laws (LL.D.) is conferred as an honorary degree on eminent persons unconnected with the University.

Fellowships.—College Fellowships constitute their holders members for the time being of the corporation, with a voice in its government, and a claim on its revenues. The condition of eligibility and tenure vary considerably in different colleges. The Fellows are elected by the college, and are generally preceded by an examination. The number attached to each college varies from 10 to 30. Nearly all the Fellows are tutors also, and the average is from £500 to £900 a year; and there are valuable collateral advantages.

Scholarships and Exhibitions.—Scholarships are in-

stitutions which constitute the holders members of College corporation, without a voice in its government, but with a claim to instruction, to rooms, and to an allowance for maintenance. There are a large number of scholarships (see various headings referring to the Colleges), most of them being open to competitive examination, and the tenure, in the majority of cases, is limited to five years. Exhibitions differ from scholarships partly in that they do not constitute their holders members of the corporation of a college, partly in that the limit of age is often extended, and partly in that they are frequently confined to persons who produce evidence of their need of assistance. They are mostly awarded after an examination. Many of the exhibitions are limited to certain schools, or localities.

Institutions in connection with the University.—*Libraries*—The Bodleian, the Taylor Institution, the Radcliffe Library, the various college libraries, and the Unattached Students' Library. *Museum and Collections*—The University Museum, the Botanic Garden, the University Galleries, the Ruskin Drawing School, the Ashmolean Museum, Arundel and Selden Marbles, the Castellani Collection and the Pomfret Collection. *Scientific*—The Radcliffe Observatory, and various College Scientific Institutions.

OXYRHYNCHUS, *oks-ir-hin'-kus*.—The name given to a fish, held by the ancient Egyptians to be sacred to the goddess Athor. It was worshipped in one of the "nomes" or divisions of the kingdom, and a city was named after it, the modern Behneseh, in Lower Egypt. To eat of this fish was considered to be a mortal sin.

P.

P, *pe*, the sixteenth letter and the twelfth consonant in the English alphabet. It is one of the mutes and labials, and is pronounced by closely compressing the lips till the breath is collected, and then allowing it to issue forth. From the approximation of sound in this letter to that of *b*, it is susceptible of change with that letter in nearly all languages, more especially that of the German. In some parts of Wales in this country, and in Lower Saxony in Germany, the inhabitants seem wholly insensible to the difference of sound in the two letters. P interchanges also in some languages with other letters, especially in French, in which (when not an initial) *v* is frequently substituted. The π of the Greeks signified 80; and in low Latin P represented 100. On medals, P stands for various names of persons, places, and qualities: as *pater*, *populus*, *pious*, *pontifex*, &c.

PACE.—A measure of the distance, when the legs of a man are extended in walking, between the heel of one foot and that of another. The Romans reckoned from the mark of one heel to the next mark of the same heel, or a double step, and that distance, nearly 5 English feet, was the unit in itinerary measurement. In the British army the pace in ordinary marching is $2\frac{1}{2}$ feet, and 3 feet in "double-quick" or running time.

PÆAN, PÆON, *pe'-an*.—Critics differ as to the etymology and signification of this word. In the hymns that were sung to propitiate the god Apollo during times of sickness, the phrase *Io pæan* was frequently repeated; and hence they came to be termed pæans. Afterwards hymns to other gods, or songs in praise of heroes, begot the term Pæan.

PADELLA, *pa-del'-la*.—A shallow vessel used in Italy in illuminations on festive occasions. It is filled with tallow or other grease, with a wick in the centre. By employing a large number of these little pans a very striking effect is produced. This method of illumination was adopted in Edinburgh, with great success, on the occasion of the marriage of the Prince of Wales.

PAGE, *paij*, (Ang.-Nor.).—A term applied to the boys who, in the Middle Ages, generally attended on the persons of estate, as a sign of their rank more than for the performance of any menial duties. The pages of the Sovereign, which are the only ones remaining in the present day, are selected from amongst the sons of the nobility, and after a certain period of service, they are usually presented with a commission in the household troops. The present Queen has four pages of honour, each of whom receives a salary of £200 a year. The term is also applied to a sort of young footman in the houses of the wealthy, who wears livery and runs on errands, &c.

PAGE OF A BOOK is one side of the leaf. Every sheet in a folio volume consists of 4 pages; a quarto contains 8; an octavo, 16; and so on.

PAGODA, *pa-go'-da* (probably from Persian *put*, idol, and *gada*, house).—A name first given by the Portuguese to Hindu temples. (See INDIAN ARCHITECTURE.) Some of these temples are of great size. A very fine example is the pagoda of Tanjore, 200 feet high. Another in Tanjore, at Chatambon, held in great veneration, is 360 feet long by 210 feet wide, and is filled with sculptures. On the coast of Coromandel are three pagodas dedicated to the god Siva, surrounded by a wall, and occupying a site

1122 feet by 696 feet. The name pagoda is also commonly given to lofty towers in China, which sometimes rise to the height of nine stories, of more than twenty feet each. (See CHINESE ARCHITECTURE.)

PAINTING, *paint-ing*.—In the artistic sense, imitating visible objects by tracing figures on a surface, and applying to them appropriate colours. Painting appears to have had its origin amongst all nations as a species of writing. In the Assyrian palaces and temples recently excavated, figures and ornamental devices were painted on the walls of sun-dried bricks. The specimens which we possess of ancient Egyptian art, show that the arts were at that period in the highest condition which they ever attained in Egypt, where painting seldom, if ever, attempted more than an outline of the object, as seen in profile, such as would be obtained by its shadow. To this outline colours were applied, simply and without mixture or blending, and without the slightest indication of light or shade. As the Egyptians did not practise dissection, they were ignorant of the true form of the bones and the muscles, and in the representation of the human figure, therefore, could only obtain such success as might result from attention to the lengths of the different parts of the body. The Egyptian artists employed six pigments, mixed up with a gummy liquid—namely, white, black, red, blue, yellow, and green; the three first always earthy, and the remaining vegetable, or at least frequently transparent. With regard to the Hebrews, we have no information as to whether the art of painting was ever practised amongst them; but it may be inferred that a people who were acquainted with the arts of carving in wood and stone, and of chasing gold and silver, would not be wholly ignorant of painting, although reverence for the literal and partial interpretation of the second commandment of the Decalogue would discourage the portrayal of “the likeness of anything that is in heaven above, or that is in the earth beneath, or that is in the water under the earth.” Indeed, pictures appear to have been almost prohibited in the Mosaic dispensation; for it is related in the Book of Numbers (xxiii, 51, 52), that Moses received the Divine command, “When ye are passed over Jordan into the land of Canaan, then ye shall drive out all the inhabitants of the land from before you, and destroy all their pictures.” In one of the visions of Ezekiel (viii, 10), the prophet was bidden to look at “the wicked abominations” of Jerusalem, and among them were “every form of creeping things and abominable beasts, and all the idols of the House of Israel, portrayed upon the wall round about.” In the same prophetic Book (xxiii, 12-14), it is said that Aholibah (symbol of Jerusalem), “doted upon the Assyrians her neighbours. . . . when she saw men portrayed upon the wall, the images of the Chaldeans portrayed with vermillion.” With regard to painting, considered as an art, it may be said to consist of two chief parts,—outline and design. Outline is a design without colour, and examples of it may be seen in the cartoons of Raphael, Retzsch, Flaxman, and others. Design, properly so called, includes outline, representing the contour of objects together with colour which gives to the image not only the hue, but also the form and relief proper to the object. The technical processes of painting are oil-painting, water-colour-painting, encaustic-painting, minia-

ture-painting, fresco-painting, enamel-painting, &c. There are at least ten branches of the art—viz., history, grotesque, portraits, fancy, animals, flowers and fruits, sea-scapes, landscape, still-life and battle-pieces. In order to successfully prosecute the art, the painter should be well acquainted with anatomy, as otherwise the living model would be useless to him. Without perspective, he is unable to dispose the objects in his picture properly. Symmetry teaches him to observe the relative proportions of parts to each other; invention assists him in representing the action and expression of the persons employed in his picture; expression tells him how to depict the passions and emotions of the mind. Colouring—that crowning beauty of the painter’s art—has also its laws. All trilling, or artful play of little lights, or an attention to a variety of tints, is to be avoided; a quietness and simplicity should reign over the whole work, to which a breadth of uniform and simple colour will greatly contribute. “Grandeur of effects is produced in two different ways, which seem totally opposed to each other. One is by reducing the colours to little more than *chiaroscuro*, which was often the practice of the Bolognese school; and the other by making the colours very distinct and forcible, such as we see in those of Rome and Florence; but still the presiding principle in both those manners is simplicity.” (See ENCAUSTIC-PAINTING, FRESCO-PAINTING, PRE-RAPHAELITISM, and WATER-COLOUR PAINTING.)

Greek and Roman Painting.—There has been much discussion as to how far the ancient Greeks were acquainted with the art of painting; but as their ancient writers, who were acquainted with the finest sculptures and the most beautiful architecture, speak in almost extravagant praise of the painters of their day, it may fairly be taken for granted that the art was practised amongst them with distinguished success. In course of time there were four great schools of painting in Greece: those of Sicyon, Corinth, Athens, and Rhodes. The first Grecian painting on record is the “Battle of Magnete,” by Bularchus, and purchased by Candaules, king of Lydia, for its weight in gold, or, as some say, a quantity of gold coins equal to the extent of its surface. This was in the year 718 B.C. During five centuries, however, the art had previously flourished in the cities and islands, having passed through the various gradations of simple skiagraphy, or shadow-painting; the monographic style consisting of a simple outline; monochromatic compositions, in which one colour only was employed; and polychromatic, where a variety of hue, but without shading, was used. After Bularchus, the art of painting continued slowly to improve until the time of Polygnotus of Thasos, who, in 460 B.C., founded what may be called the Athenian school, and whose pictures were admired several centuries after his death. A new period of Grecian art commenced (400 B.C.) with Apollodorus, Parrhasius, Timanthes, and Zeuxis; the latter of whom is the first from whose works we derive explicit statements of the ideal in Grecian painting, and who systematized the art of *chiaroscuro*. There is reason to believe that he was the first to teach the true method of grouping, artists before his time having arranged the figures in lines, without any principal group on which the interest of the event was concentrated. Parrhasius excelled in refinement of drawing, and Zeuxis in grace. The last epoch of painting in Greece commences with Apelles (about the conclusion of the 4th century B.C.), whose style, as far as we can judge from the descriptions of the ancient writers, must have closely resembled that of Raffaele, while their choice of subject appears to have been nearly similar. A Venus painted by him was esteemed the most faultless creation of the Grecian pencil, and was purchased, long after the artist’s death, for 100 talents, or £20,000, by the Emperor Augustus. Contemporary with Apelles was Protogenes, an excellent artist, whose only fault was that he finished too highly; and somewhat later lived Nichomachus Pausias (who carried the art

of encaustic painting to great perfection). Aetion, Aristides, Eupheanor, Nias and others, with whom the art began to decline, through causes connected with the dismemberment of the Macedonian empire. As far as can be understood from the allusions of ancient writers, the Greek artists practised three principal methods of painting: first, distemper, employed for mural pictures; second, glazing, when the picture, after being finished in water-colours, crayons, or distemper, was covered with a coat of hard and transparent varnish; and thirdly, encaustic, when the colouring matters actually incorporated with wax, or preparations of wax, were thus applied in a liquid state, and when finished allowed to dry. The Etruscans practised painting, but the remains known to us show the influence of Greek art, which, according to Pliny, was introduced into the cities of Latium in the 17th century B.C. There are three periods observable in the history of painting in ancient Rome, where, however, no great national school of painting ever flourished: the first, that of Græco-Roman art, which may be dated from the conquest of Greece until the time of Augustus, when the artists were chiefly Greeks; the second, from the beginning of the Christian era until about the latter end of the 3rd century; the third, when Rome, in consequence of the foundation of Constantinople, and the change it involved, suffered spoiliations similar to those which it had previously inflicted upon Greece. During this second period, portrait-painting was very common in Rome, and mosaic was so general as to a great extent even to supersede painting. The fanatic fury of the early Christians against anything that reminded them of Paganism, the division of the empire, and the incursions of the Goths and other barbarians, led to the destruction of all traces of the former splendour of the fine arts; and Christianity helped still further to stifle them, by making purity of heart everything, and physical ugliness or deformity nothing, and by inculcating that mankind, being corrupt and born in sin, no Christian painter ought to look at the naked figure whilst he was painting it.

Painting in Italy.—In spite of the fact that the popes and emperors at an early period gave orders for the adornment of the churches with pictures, the art continued to decay until the middle of the 11th century, when St. Didier, having sent (A.D. 1066) for Greek artists to adorn Monte Casino, at Subiaco, the example was followed by the corporations of Pisa, Venice, Amalfi, and Genoa, who rivalled each other in adorning their native cities with works of art; and painting, having sunk to the lowest barbarism, went on improving, till the taking of Constantinople by Mohammed II. dispersed the Greek and Byzantine artists collected there, and scattered them all over Europe. Hundreds went to Italy, and inoculated Italian artists with some remnant of their taste for beauty, decayed as it was. Soon after their arrival, some of their pupils began to excel them, and Cimabue (A.D. 1240) was one of the first, if not the first, to give indications of attempting something new in painting. He was himself excelled by Giotto, a shepherd boy, whom Cimabue had taken as a pupil, and who may be looked upon as the father of painting in Italy.

Schools of Painting.—In the 15th century there were two schools of painting in Europe descended from the Byzantine school, i.e., from the Greek artists who had emigrated from Constantinople to various parts of Europe on its capture by Mohammed II.; namely, the Transalpine school and the Italian school: the former being again divided into the *Dutch, Flemish, and German schools*; and the latter into the *Florentine, the Sienese, the Roman, the Neapolitan, the Venetian, the Mantuan, the Modenese, the school of Parma, the school of Cremona, the Milanese, the Polognese, the Ferrarese, the Genoese, and the school of Piedmont*, and the adjacent territory.

The Dutch, Flemish, and German Schools.—A few characteristics of a national style are to be found in the history of art in the Dutch and Flemish schools, as distinct from the German school, prior to the close of the 16th century, they may here be considered as one and the same. Its earliest pictures were painted upon wood, usually oak, covered sometimes with canvas, always with a white ground, upon which the outline of the subject was sketched, and the whole overlaid with gilding, the latter forming the real

grounding of the picture, which was painted in water or size-colour, with great care and diligence, and with more truth to nature than occurs in any other works of the same age and description. At the beginning of the 15th century, however, John van Eyck discovered, or at any rate brought, oil-colours into general use; and the Transalpine school being thus put early into possession of an advantage contributing principally to the distinguishing qualities of fine colouring and exquisite finish, at once took a high position. Of the great masters of this school, we may more particularly mention the Flemish painters, John van Eyck himself, whose paintings are distinguished by brilliant colouring, magic effect of the *chiaroscuro*, carefully laboured though often tasteless drawing, a strong yet natural expression, and boldness in composition. Francis Floris (born 1520, died 1570), called the Flemish Raphael; Francis Snyder, whose hunting-pieces are amongst the very best, if not the best of their kind; and Peter Paul Rubens (born 1577, died 1640), the author of about 4,000 pictures, distinguished for brilliancy of colouring, the play of reflected lights, and splendour of general effect in his historical pictures; and for the freshness, clearness, and variety of nature in his landscapes; but who, in the former class of pictures, is sadly wanting in the elevation of form and sentiment, which ennobles the works of the old masters of the schools of Florence and Rome. Of Dutch painters, the most distinguished during the 16th and 17th centuries were its founder, Luke of Leyden (born 1494); Cornelius Poelenburg, of Utrecht (born 1586, died 1663), who was famous for his skill in painting small landscapes with figures; John Daniel de Heem, of Utrecht (born 1604, died 1674), known for his faithful imitation of flowers, fruits, carpets, and vases; and, greatest of all, Paul Rembrandt van Rhy, born in 1606, who was master of all that relates to colouring, distribution of light and shade, and the management of the pencil, but who was wanting in many of the characteristics of a true artist; such as composition, perspective, and dignified expression. Of the German branch of the Transalpine school, as it ceased to be a distinct school when it ceased to be Gothic—i.e., after the 15th century, it will be sufficient here to mention Albert Durer, born in Nuremberg, 1471, whose works, although somewhat hard and meagre, excel in truth, originality, simplicity of thought, and good colouring; and Holbein, his contemporary, whose works, chiefly painted in England during the reign of Henry VIII., are excellent examples of the school.

The Italian Schools.—The great men of the Florentine school painted more in fresco than in oils. After the lapse of a hundred years from the death of Giotto, during which the art had been slowly improving, appeared Tomaso da San Giovanni, nicknamed Masaccio, from his total neglect of personal appearance, who, although he died at the age of twenty-four, advanced the art from a state of infancy far towards the vigour of manhood. Shortly after his death was born Leonardo da Vinci, who, as philosopher, poet, and artist, anticipated three centuries, and who, to the truth and precision of character introduced by Masaccio, added new and most valuable qualities, by introducing the principles of *chiaroscuro*, and depth of tone in colour. The "Last Supper," painted by him in fresco at Milan, exhibited a dignity and propriety of expression unequalled at the time; and, if seen as originally painted, probably still unsurpassed. After him came two contemporaries, who are regarded as the greatest painters of any age or country—Michael Angelo (equally famous as a sculptor), born in Florence in 1474, and Raphael, born in Urbino in 1483. Although contemporaries, they were most unlike in all the characteristics of genius save in the final result. The former excelled in energy, the latter in beauty. Michael Angelo's conceptions are wonderful, but singular, and remote from nature; the figures on his canvas are a superior order of beings, and there is nothing about them to put us in mind of their belonging to our species. An ideal abstraction of mind was the object of his imitation, to which all living nature, elevated into gigantic forms and energetic modes, was to be moulded in subserviency. The excellency of Raphael, on the other hand, lay in the propriety, beauty, and majesty of his characters; his judicious contrivance of composition, correctness of drawing,

and purity of taste. The manner of his best pictures is full, harmonious, sweet, and flowing, yet bold, learned, and sustained, and composed of such a union of natural grace and antique correctness as meet only in the creations of his pencil. Raphaelle properly belongs to the Roman school of painters; but in speaking of the history of the art of painting, it is difficult not to associate his name with that of Michael Angelo. Of the artists who supported the reputation of the Florentine school after Michael Angelo, we may mention Daniel di Volterra, who imitated him, as did many others, in a somewhat hard and laborious manner; Andrea del Sarto, who followed the style of Leonardo da Vinci; and Carlo Dolce, who is famous for Madonnas and small pictures, which he finished with exquisite delicacy of pencil, and which are fraught with the genuine expression of certain affecting emotions. Some lovers of art have doubted the right of the so-called Roman school to that appellation, as most of the artists who flourished at Rome were either natives of the other cities of the Roman states, or from other parts of Italy; however this may be, the Roman school, or academy, appears to have come into existence about the time of the transference of the papal chair from Avignon to Rome, and to have owed its immediate origin to the diligence of the pontiffs in decorating the Vatican. The only master of this school whom we will here mention before Raphaelle is Pietro Perugino, his instructor in the mysteries of the pencil. His style was narrow and contracted, his figures and draperies being pinched up in a very unpleasant manner; but his youthful and female heads were frequently graceful, and it is known that Raphaelle esteemed his works very highly. Raphaelle, whose place of birth we have already mentioned, had at different periods of his life three distinct styles of painting: the first dry and meagre, in imitation of his master, Pietro Perugino, but not without truth, and often great beauty of finishing; the second, an intermediate step—an attempt to escape from a minuteness which he soon found to be unsuitable both to his own fervour and the dignity of art. The third manner, solely and exclusively individual, proceeding from the study of nature and the antique, and of which the most wonderful example is his picture of the "Transfiguration." His death, in 1520, proved an irreparable loss to the arts; and that, and the death of Leo, with the inattention of his successors to anything connected with the fine arts, proved most injurious to the Roman school, which still, however, produced some great masters, of whom the most prominent are Michael Angelo Caravaggio (born 1566), who aimed at great simplicity of colour, and generally chose sombre subjects, such as nocturnal skirmishes, treachery, and murder. Salvator Rosa (born 1615), who applied the style of Caravaggio to landscape, and chose as his subjects savage scenery, Alps, broken rocks and caves, wild thickets, and desert plains. His genius, however, was not confined to such compositions, as he painted some altar-pieces, which are well conceived and of powerful effect. Nicholas and Gaspar Poussin, although Frenchmen, are generally classed in the Roman school, as its style was their rule, and Rome was the constant theatre of their efforts. Towards the close of the 17th century, the Roman school had sunk into the last stage of decline; the result of the calamitous events which had afflicted Rome about the middle of that century; the feuds of the nobles, the flight of the Barberini family, and the dreadful plague of 1655. The rudiments of the Venetian school of painting appear to date from the 11th century, about the year 1070, when the doge Selvo invited mosaic-workers from Greece, to adorn the magnificent church of St. Mark; a great impulse being given to it by the arrival of an immense quantity of pictures, statues, and bassi-relievi from Constantinople, after its capture in 1204. The Venetian were the first of Italian artists who became acquainted with Van Eyck's method of painting in oils, and George Bellini was the first in Venice, towards the close of the 15th century, to practise and obtain success in it. His pictures are gracefully drawn, and mellow in colour; but his chief merit consists in the fact that he was the master of the three great Venetian painters—Titian, Giorgione, and Sebastiano del Piombo, from whom the Venetian school may be said to have taken its distinctive characteristics of smooth harmony and brilliancy of colouring. Giorgione,

whose real name was Giorgio Barbarelli, the friend and rival of Titian, painted with a certain freedom and audacity of manner of which he may be said to be the inventor, and which he combined with very rich and careful finishing. His works were, for the chief part, executed in fresco; and as these works were generally upon the outside of the walls of houses, scarcely any of them now remain. Many of his oil-paintings, however, are to be found both in Venice and other places, in excellent preservation and full of grace and beauty. Sebastiano del Piombo, who may be considered a disciple, and the most distinguished one, of Giorgione, imitated him very closely in the tone of his colours and the fulness of his forms, and was particularly successful in pictures for private rooms and portraits. It is said that Michael Angelo held him in such esteem as a colourist, that he united with him, in order to oppose the too favourable opinion entertained by the Romans of Raphaelle. Great as were these painters, however, Titian (born 1477, died 1576) must be regarded as altogether at the head of the school under notice. In expression, he is the most historical of all painters, his portraits being second only to those of Raphaelle; in careful imitation of natural effect, he is equal to the most painstaking of the Dutch school, whilst at the same time preserving great grandeur and breadth of effect. In his pictures, the surrounding colours and objects are delicately reflected by every surface capable of reflecting, even in the eyes of the figures; and the broad shades, instead of being mere dark masses, are composed of those innumerable gradations which mark the shadows of nature. The Venetian masters were unable, after his death, to maintain the reputation which Titian had gained for it; but we must mention Tintoretto, his contemporary, a painter full of fire and sprightliness, who has been called the lightning of the pencil, from his miraculous despatch, and whose pictures are distinguished by wild and fantastical inventions; Bassano, who was particularly expert in the representation of animals; and Paul Veronese, who founded a distinct branch of the Venetian school. His genius was naturally noble, and even magnificent and vast, and whilst his compositions failed in historical correctness and elegance of design, they are exceedingly attractive, from their freshness and magnificence of colouring. In his pictures are to be found splendid banquets, sumptuous edifices, bright aerial spaces, noble vestments, lords and ladies, crowns and sceptres, arms and jewels. In the course of time, the masters of the Venetian school became mannerists in colour; but it cannot be denied that during the period of the decline of art throughout Italy, the Venetian school shone peculiarly conspicuous in the number of superior artists it produced. The next school of any importance is the Lombard school, which comprehends those of Mantua, Modena, Cremona, and Milan. The art of miniature-painting was practised at a very early period in Mantua; but in regard to pictures, the first known artist is Andrea Montegna, who was a native of Padua, and established his school at Mantua at the end of the 15th century, where he has left some works of great merit; and with him must be mentioned Giulio Romano (born 1492, died 1546), Raphaelle's most distinguished pupil, whose last works at Mantua, chiefly in fresco, place him at the head of that school. Contiguous to the Modenese school is the Parman, which brings us to Correggio (born 1494, died 1534), the most delightful of all painters, and one who, from the bosom of poverty, without master, without patron, burst at once upon the view in all the blaze of original talent. He had come into notice at a time when it was resolved to paint the great cupola of St. John at Parma, and he was selected as the artist. The clearness and relief, the sweetness and freedom of pencil in the works which he thereupon executed, have never been exceeded; whilst the grandeur of design, and the boldness of conception in the foreshortenings, have astonished all succeeding generations of artists. In the management of light and shade he was unequalled; and his only defects were a certain want of correctness, and a want of force, which sometimes render the whole effect of his pictures effeminate and monotonous. Parmegiano is the next important name in this school; but he cannot be compared with Correggio. The school of Cremona appears to have had its origin in the foundation of the magnificent cathedral in 1107, which was as speedily

as possible decorated with all that sculpture and painting could afford; and, indeed, the history of the school is almost identical with the history of its adornment. The Milanese school dates from 1335, when Giotto was employed in ornamenting various places in the city, which long continued to be regarded as most beautiful specimens of the art; but the founder of the Milanese school is, however, by many considered to be Vincenzo Foppa, who flourished about the year 1407, and was employed by the celebrated Francesco Sforza. Towards the close of the 16th, and early part of the 17th centuries, the progress of decline in the art of painting in Italy was stayed for a time by the rise of a new school, the Bolognese, or Eclectic, the great principle of which was to select what was most excellent in the primitive schools—design from the Florentine, grace from the Roman, from the Venetian colour, and from the Lombard, light and shade. We have spoken of this school at length under the head **BOLOGNESE SCHOOL**. The most ancient specimens of the art of painting in France are those on glass, many still remaining of considerable beauty.

The French School.—The school of French painting may fairly, however, be supposed to have risen in the reign of Francis I., who, for the improvement of his subjects, brought artists from Italy. The first native painter of France whose name we find recorded, is Jean Cousin; but the first French masters of eminence were Vouet (born in 1582), and Nicholas Poussin (born 1594), who has been already mentioned as belonging to an Italian school, and who had formed his taste by a residence of nearly twenty years in Italy, before he was invited, in 1630, to a pension and an apartment in the Tuileries. He has been called the Raphael of France; and the characteristics of his works are extreme correctness of form and costume, great propriety in keeping, and the most enchanting simplicity of design. Louis XIV., who commenced his reign in the year 1643, having resolved to give to France a school of native artists, called into existence a race of painters, of whom the most distinguished were Le Sueur, who, with the exception of Poussin, is supposed by some critics to be the best painter France ever produced; Le Brun, who had a lively fancy, great dexterity of hand, and sometimes noble conceptions, but who was in all things too artificial. Contemporary with these was Claude Gellée, commonly called Claude Lorraine, who was a master of aerial perspective, as of nearly every other branch of landscape; but though French by birth, he practised his art and passed most of his life in Italy. In the succeeding reign, Antoine Watteau painted *fêtes galantes* with grace and effect; Joseph Vernet was noted as a marine painter; and Jean Baptiste Greuze was famous for his female heads and representations of domestic life. Painting deteriorated in France during the latter half of the 18th century; but was restored to a certain amount of vitality about the time of the French revolution by Jacques Louis David, whose style, known as the "classic," is dry and pedantic; and who was followed by a numerous band of scholars. At length Gros, Gericault, and others, inaugurated the system of painting from nature, and originated the modern French school, of whom a few of the most distinguished ornaments are Paul Delaroche, historical painter; Ary Scheffer, famous for ideal conceptions; Horace Vernet, unrivalled in battle-pieces; Rosa Bonheur, an exquisite painter of cattle and horses; and Troyon, excellent in landscape. The Spanish school can scarcely be said to have had an existence previous to the middle of the 15th century, when some Flemish artists gave the native painters their first practical ideas of colour and design.

The Spanish School.—In the 16th century, schools were in existence in Castile, Valencia, Seville, and elsewhere, that of Seville being the most distinguished. Among the eminent men connected with them were Antonio del Rincon, Luis de Vargas, Luis de Morales, Vincente Joanes, sometimes called the Spanish Raphael; Pablo de Cespedes, and Juan de las Roelas, most of whom studied in Italy, and flourished in the 16th century; Francisco Zubaran, a distinguished painter of the naturalistic school of Caravaggio; and Diego Velasquez de Silva, and Bartolomé Esteban Murillo, whose place is in the first rank of the artists of any age or clime. Since the commence-

ment of the 18th century, Spain has produced no painters of eminence.

The English School.—Little can be said previous to the 18th century; since, although Holbein, Rubens, Vandyke, and other distinguished artists had, during the previous two centuries, successfully practised their art in England, their influence failed to form a national school. It may be true that, as has been asserted with much show of credibility, oil-painting was known in England two hundred years before the time of Van Eyck, and that in the 14th century, painting on glass, heraldic emblazonment, and the illumination of manuscripts, were practised amongst us with much success; but it is, nevertheless, very certain that English art, almost crushed in its cradle by the civil wars of York and Lancaster, received another severe blow at the Reformation, when churches and convents, the great repositories of high art, were ransacked of their rich contents. The wealth and information which began to flow through all classes of English society in the reigns of Elizabeth and James, had begun to create a taste which the predilections of Charles I. were calculated to improve; and his reign appears to have been one of the most favourable periods in our history for the foundation of a British school of art. The fearful convulsions, however, which closed that monarch's career, once more postponed it, and until the reign of George III. the British school of painting is only represented by native artists of obscure fame and merits—as Dobson, who died in 1646, and was brought into notice through the generosity of Vandyke; John Riley, who painted the portrait of Charles II.; Hoskins and Cooper, famous as miniature-painters; and Hudson, the master of Reynolds, with whom the British school first assumes the dignity of higher art, the elevation commencing with the portraits painted by Sir Joshua Reynolds, about 1752. This artist, to whom is attributed the honour of founding the modern English school, was really a great artist, excellent in portraiture, and eminent as a colourist. His contemporary and rival, Thomas Gainsborough, often equalled him in portraits, but is better known as a painter of landscapes, which would adorn the art of any period. They were preceded by Hogarth, whose pictures were powerful satires on the morals, manners, and follies of the age; but he had but little direct effect upon the artists of his time. Among the other painters who flourished during the latter half of the last century, were Richard Wilson, eminent in landscape; Romney and Opie, who were, to a great extent, self-taught artists; Barry, famous for historical paintings; and Sir Benjamin West, who, though born in America, belonged as an artist to England, where he practised his art during the greater part of his career, and where, as an historical painter, he attained the highest eminence. In the first quarter of the present century flourished Sir Thomas Lawrence, whose female heads are most striking, lovely, and highly-finished; Hoppner, Raeburn, and Jackson, also portrait-painters; Wilkie, at first a painter of scenes of humble life, but afterwards giving himself to historical works; Haydon, an historical painter of some merit, but a great mannerist; Etty, a vigorous colourist; Turner, the most original and imaginative, perhaps, of landscape-painters; Constable, Callcott, W. Collins, Morland, Nasmyth, Barrington, eminent in the same department; and John Martin, whose pictures are filled with extravagancies of light and shade. During the same period, *genre* was cultivated by Bird, Smirke, Stothard, and many others, and has been continued to the present day by a succession of recent and living painters of splendid ability. The first academy in London for studying from the human figure, promoted chiefly by Hogarth, was established in 1735, having been preceded by a few years by a similar institution in Edinburgh. A very great impulse to English art was given by the establishment of the Royal Academy of Arts, or the Incorporated Society of British Artists, as it was at first named, in 1765. British painters have achieved special eminence in landscapes and portraits. Painting in water-colours originated, and has attained its highest excellence, in this country. A school of painting has arisen in Germany in the course of the present century, which aims to reproduce the characteristics of the early German and Italian styles, and in Belgium a similar artistic revival has taken place. America contributed many admirable painters

to this country, among them West, Copley, Newton, and Alliston, who attained their professional eminence in England, and chiefly in connection with the Royal Academy; and of late years a national American style of painting appears to be developing.

Processes of Painting.—Fresco, encaustic, miniature, water-colour painting, painting on porcelain, and some other processes, receive separate notices under their proper headings. In this place it will be sufficient to describe briefly the method of painting in oil. Few modern artists adopt the plan of painting on wooden panels, frequently adopted for large pictures, especially by the Flemish artists. Stretched canvas, primed with paint, usually white as a ground, is generally used. On this canvas the design is sketched with charcoal or chalk, and then filled up. But in this respect, as in the mixing of colours and their production of tints, there is great variety in the practice of different painters. The colours are arranged on a palette, held in the left hand, which also holds the maulstick or rest, to steady the right hand; and they are applied by brushes of various sizes, according to the requirements of the work. A vehicle, or medium, generally maglin (which see), is used to dilute the colours, but is frequently thickened with various materials for the purpose of giving consistency to the colour. The preservation of oil-paintings depends to a great degree upon the nature of the medium employed. Sometimes great brilliancy of effect is at first produced at the cost of early cracking and decay of the surface. Old pictures are cleaned—or “restored,” in technical phrase—not unfrequently to their great detriment, by various processes of scraping away the old varnish with the accumulated dust, or by the application of alkali, alcohol, and other solvents, the latter method requiring great care and delicacy to prevent serious injury to the painting. A painter's technical implements are chiefly a selection of pencils or brushes made of sable or some other fine hair, and (for the larger brushes) hog's bristles; a knife, or spatula, with which the colours are mixed; a palette, or thin tablet of wood, held in the left hand by means of a hole through which the thumb is passed; a maulstick, and an easel or stand, on which the stretched canvas is placed at an angle convenient for working. The arrangement for admitting light into the studio is a matter of considerable importance. Figure-painters study from both living models and lay figures, the latter chiefly for the arrangement of drapery.

PALACE, *pal'-ase* (Fr., *palace*).—A magnificent residence. The name in this country is almost limited to the abodes of the Sovereign, but it has recently been extended to very large places of amusement. In Italy, the name is given to the splendid residences of noble and illustrious persons.

PALADIN, *pal'-a-din*.—A name applied by the romantic poets to the knights-errant of the Middle Ages, and to famous warriors. It was derived from the title of Count Palatine, or of the palace, the highest dignity of the Merovingian court. (See **PALATINE**.)

PALÆOGRAPHY, *pal-le-og'-raf-e* (Gr., *palaios*, ancient; *grapho*, I write).—The science or art of deciphering ancient writings, including the study of the various inscriptions, and the knowledge of the characters in use among the writers of different nations, with their abbreviations, initials, &c., the changes which have occurred in grammar and orthography, and the materials used for writing purposes at different periods. This knowledge is applied to test the genuineness of ancient records. A considerable acquaintance with history, laws, literature, and many other subjects is necessary to an accomplished palæographer. In the 11th century, probably on account of parchment being rare, it became a general practice to erase the ancient and so-called profane manuscripts, in order to transcribe recent theological treatises. The name

of *Palimpsests* was given to manuscripts thus erased and again written upon, and great skill and patience are required in deciphering the original manuscripts. (See **PALIMPSEST**.) *Diplomatics* is a branch of Palæography. (See **DIPLOMATICS**.)

PALÆSTRA, *pa-les'-tra* (Gr., *palaios*, I wrestle).—The name given by the Greeks to a building used for athletic exercises.

PALANQUIN, or **PALANKEEN**, *pal-an-keen'* (Hindu, *palki*).—A kind of litter or covered carriage, which forms the principal vehicle for personal transport in Hindustan. It is borne on the shoulders of porters, called *coolies*. Palanquins are generally provided with a bed and cushions, and a curtain which can be dropped when the occupant is disposed to sleep.

PALE, *pail* (Lat., *palus*, a stake).—The most simple style of ordinary used in Heraldry. It encloses one-third of the escutcheon, and is bounded by two vertical lines from the sides of the same. Although sometimes it exceeds that number, it seldom contains more than three charges. The term *pallet* is applied to half the *pale* when borne by itself; occasionally, however, even three *pallets* are borne together. When a coat is bisected by a vertical line which has a different field on each side of it, it is said to be *party per pale*, or, in other words, *divided by the pale*. It is stated in books on heraldry that the *pale* is one of the most ancient of bearings, as it is likewise honourable. Several charges placed over each other are said to be “in *pale*,” as in the case of the three lions of England.

PALI, *pa'-le*.—The sacred language of the Buddhists, in which their principal books are written. It ceased to be a living language when the Buddhists quitted India.

PALIMPSEST, *pal'-imp-sest* (Gr., *palimpsestos*, again, I erase).—The practice of writing again on an old manuscript existed among the Romans. Sometimes the old writing was entirely obliterated by the use of a sponge when the ink used was only a greasy pigment, or, when a mineral ink had been employed, by scraping or rubbing with pumice-stone. The operation was frequently very imperfectly performed, and in many ancient manuscripts, traces of the earlier writing are perceptible, and in some cases can be deciphered. From the 7th to the 11th century, it was customary for monkish transcribers to write on the old and probably imperfect manuscripts of the works of classic, and, as the ecclesiastics considered, heathen authors. The first scholar who attempted to make literary use of the old palimpsests was Dr. Paul Bruns, a German, who, about 1773, traced on one of the Vatican manuscripts an over-written fragment of one of the books of Livy's Roman history. Other scholars followed up the line of investigation, and among other discoveries was that of a manuscript, the original of which had been twice written over. Very important discoveries of portions of the Old and New Testaments, underlying writing of later date, have been discovered; and the oldest known manuscript of portions of Homer's “*Iliad*,” was found as a palimpsest among a collection of Syrian manuscripts. Considerable fragments of nearly all the Greek writers on Roman history, and of the *De Republica* of Cicero, have also been brought to light by the scholars who have examined and

edited palimpsests. Various methods of treating the manuscripts, so as to remove the second writing without injuring the first, have been adopted, such as washing them with a solution of galls, or muriatic acid, and prussiate of potash, and even, when the later ink contained animal substances, boiling in oil.

PALINDROME, *pal'-in-drome* (Gr., running backwards).—A phrase or verse which reads the same either forwards or backwards. It is common in Latin literature, and has been imitated, although with difficulty, in other languages. It belongs to the same family of literary puzzles as anagrams, and the credit of the achievement of the difficulty is scarcely worth the trouble taken.

In Medicine, the term "palindrome" was used by the old doctors to describe "a regurgitation of humour to the more noble parts; also a relapse into a disease."

PALISADE, *pal'-i-sade*.—A strong timber fence, used in fortifications. (See STOCKADE.)

PALL, *pawl*.—In Heraldry, a Y-shaped device on the shield ("the upper part of a saltire conjoined to the lower part of a pall"), supposed to represent a *pallium*, or cloak, and frequently appearing in the arms of bishops. (See PALLIUM.)

PALL-MALL. (See MALL.)

PALLADIUM, *pal'-lai'-de-um*.—The name given by the Greeks to wooden images of the goddess Pallas, or Athene, the careful preservation of which in sanctuaries was supposed to ensure the public welfare. The Palladium of Troy was, according to the legend, thrown down from heaven by Zeus, and fell on the plain of Troy.

PALLIUM, *pal'-le-um* (Lat., a cloak).—A square woollen cloak much worn by the Greeks, resembling the *toga* of the Roman citizens. It was formed of woollen cloth cut square, and was worn over the tunic, or sometimes, indeed, over the naked body as the sole covering, being fastened to the shoulder or neck by a fibula or brooch.

PALMER (Lat., *palmifer*, a palm-bearer).—A pilgrim, who, on returning from the Holy Sepulchre, carried a branch of the Oriental palm as a token that the pilgrimage had been accomplished. On reaching home, the palm was presented to the priest of the church and laid upon the altar.

PAMPHLET, *pam'-flet*.—A small book consisting of sheets stitched together and sold unbound. The English *pamphlet* is synonymous with the French *brochure* and the German *Flugschrift*, as they all mean publications that are merely written for the moment and for immediate effect. In the last century, and earlier, political pamphlets were common enough in England, and their composition gave the means of living to a rather disreputable class of authors known as "pamphleteers." In later times many statesmen and writers of eminence have published pamphlets on important topics of the day; and Parliamentary speeches, which are considered to be of especial value, are frequently reprinted in pamphlet form.

PANATHENÆA, *pan'-ath-e-ne'-a*.—A great festival celebrated at Athens in honour of Athene, the titular goddess of the city. It was especially

intended to commemorate the union of all the people of Attica into one community, and is supposed to have originated about 1500 years before the Christian era. There were two festivals: the Lesser held every year, and the Greater every fourth year. Gymnastic and musical competitions, recitations of the Homeric poems, dramatic representations, processions, and sacrifices, were the chief features of these celebrations. The sculptures by Phidias and his assistants, on the frieze of the Parthenon, represented the processions, and many of these noble works of art are now in the British Museum.

PANCAKE, *pan'-kake*.—A thin cake of fried batter, generally eaten on Shrove Tuesday, in accordance with a custom the origin of which is not known with any certainty.

PANCHATANTRA, *pan'-kal'-an-tra* (Sanskrit, the five books).—A famous Hindoo fable-book. The author, or compiler, is supposed (but the fact is not clearly established) to have been a Brahmin named Vishnusaarman, tutor of the son of one of the early English kings. The book has been translated into German by Professor Theodor Benfey.

PANDEAN PIPES, *pan'-de-an*.—An ancient wind instrument of music, consisting of a number of reeds of progressive lengths joined together, said to have been invented by the god Pan; hence its name.

PANDIT. (See PUNDIT.)

PANEL, *pan'-el*.—A compartment of a wall, ceiling, door, or partition, enclosed by moulding, or framings. Panels are often highly ornamented, especially in connection with the Tudor style of domestic architecture. When the centre of a panel is raised with mouldings, &c., it is described as "fielded."

In Art.—A picture painted on a thin piece of wood, instead of upon canvas, is known as a panel picture.

PANORAMA, *pan-o-ra'-ma* (Gr., *pan*, all; *roama*, a view).—A large picture, generally of a town or landscape, so constructed that a spectator in the centre of the room can have a complete view of the objects represented. This ingenious contrivance was invented about 1794 by an English artist, Robert Barker, who exhibited panoramic views of Edinburgh and London; it was painted *in distemper*, or similarly to the mode employed in scene-painting. The panorama forms the surface of a hollow cylinder or rotunda, in the centre of which is a detached circular platform for the spectators, covered over-head to conceal the daylight; thus increasing the illusion and adding greater effect to the picture. The latter is painted on canvas like the scenes of a theatre. In painting a panorama, the artist must take from a high point an accurate plan of the whole surrounding scenery as far as the eye can reach. The great objects to be aimed at in panoramas are truthfulness of representation and closeness of imitation. (See DIORAMA.)

PANTALOON, *pan'-ta-loon'* (Ital., *pantalone*, Fr., *pantalon*).—One of the chief actors in a pantomime, who plays the part of foil to the clown, to display his witticisms and practical jokes upon. He is generally represented as an old man, with white hair and beard. Pantaleone was the patron saint of Venice, and was given as a nickname to Venetians by other Italians. Old English writers used the word to describe a weak

old man. Thus Shakespeare, in his famous description of the "seven ages," speaks of the "lean and slipped pantaloon." The name pantaloons was given in old times to a garment consisting of breeches and stockings fastened together, and both of the same stuff. In more modern costume, trousers, fitting closely to the leg, fashionable in the Regency days, were known as pantaloons. The name is derived from one of the masks in Italian comedy. (See PANTOMIME.)

PANTHEON, *pan'-the-on*, (Gr., *pan*, all; *Theos*, God.)

PANTOMIME, *pan'-to-mime* (Gr., *pan*, all; and *mimeo*, I imitate).—The art of expressing action and emotion by gestures, without calling speech into play. According to most authorities on the subject, the word *pantomime*, as we understand it—that is, meaning a performance based more or less on mimicry and gestures—was originally used in Rome; and entire theatrical representations, consisting of gestures merely, were termed *saltatio pantomimorum*. Under the first emperors, this species of performance was particularly developed. The most celebrated rivals at this era in the art were Bathyllus, Pyrlades, Hylas, and others, in the days of Augustus. The people took the greatest interest in them; and riots were frequent, owing to the crowds who gathered round the doors of the circus long before the hour of performance began. In course of time, the pantomimes became low and degraded in character to mere wantonness, the performers, male and female, even appearing in a state of nudity; and some ancient authors ascribe the decadence of Rome as owing in part to their influence. In the Italian masks a trace of the old performance can be found, and most of the characters which we now use in pantomime were then embodied. (See DRAMA.) In the modern pantomime, the gestures are, to some extent, permitted the use of dialogue; and the ballet, which formed such an important part in its performance on the Roman stage, is still retained. The pantomimes of the present day, however, appear to depend more upon the burlesques which precede them, and scenic effect, than on the legitimate interpretation of the word pantomime. They are, in fact, displays of scenery (especially "transformation scenes") and ballets, aided by the attractions of lime and electric lighting, and interspersed with comic singing and acrobatic performances. Harlequin, clown, and their companions have very little to do, compared to the business devolving on them in the "good old pantomime times" of Grimaldi.

PAPYRI, *pa-pi'-re*.—The name given to rolls of papyrus, on which are inscribed ancient records. Some of the Egyptian papyri preserved are about 4,000 years old. Some of them have been found in mummy caves, some in the hollow wooden figures of deities, and some in jars or boxes. They are of three kinds—hieroglyphical, hieratic, and demotic or enchorial. (See HIEROGLYPHS.) Many very interesting papyri have been found in the ruins of Herculaneum and Pompeii.

PARADE, *pa-radé*.—A term originally applied to the courtyard of a castle, or open ground adapted for military exercise. This old meaning is retained as the name of the open space in St. James's Park, facing the Horse Guards. Now the term is generally applied to an inspection or

review of troops, who are then said to be on parade.

PARADIGM, *par'-a-dim* (Gr., *paradeigma*, an example).—The example of a verb conjugated in the vocal moods, tenses, and persons. In Rhetoric, it means a representation or illustration, as a fable or parable. Amongst early writers of theology, those were termed *Paradigmatics* who wrote the lives of religious persons, as examples of Christian holiness for the people at large.

PARADOX, *par'-a-dox* (Gr., *para*, contrary to; *doxa*, opinion).—The Stoic philosophers applied this term to opinions which contradict generally received beliefs. It is now generally applied to expressions of opinion which, examined superficially, appear to involve contradictions; but which, on closer investigation, are found to express important truths. Some writers affect this mode of reasoning, which gives opportunity for epigrammatic smartness, and puzzles less acute intellects. The term is also sometimes applied to plausible theories which involve essential contradictions and logical incongruities; and in this sense the late Mr. Augustus de Moyan, the eminent mathematician, published "A Bundle of Paradoxes," a collection of crude speculations relating to the mathematical and physical sciences.

PARAGRAPH, *par'-a-graf* (Gr., *para*, by the side of, and *grapho*, I write).—In Literary Composition, a small subdivision of a connected discourse. Paragraphs are generally distinguished by a break in the lines, or sometimes by the sign ¶ (which is also used as a mark of reference to a foot or side-note). In the authorized version of the Bible, the sign is prefixed to the verse which begins a new subject.

PARALLELS, *par-al'-els*.—In Military Language, parallels are trenches cut in the ground for the purpose of covering the besiegers from the fire from a fortress. They are more or less parallel to the defensive works; hence the name.

PARAPET, *par'-a-pet* (Ital., *parapetto*, from the Greek *para*, against, and *petto*, a breast).—A defence or screen on the extreme of a rampart or other work, serving to cover the soldiers and guns from the enemy's fire.

In Architecture, the parapet is a low or breast-high wall, raised on the brinks of platform roofs, terraces, bridges, quays, &c., in order to serve as a stay and prevent accidents. In classic architecture, the parapet was commonly formed of balustrades. In later Gothic, the parapet is richly ornamented.

PARAPH, *par'-af* (Gr., *para*, near, and *apto*, I touch).—A particular character, knot, or flourish, which people habituate themselves to make always in the same manner at the end of their name, which, having the appearance of an accidental flourish, is likely not to be noticed by imitators, and it prevents the signatures from being counterfeited. In old times the paraph was sometimes placed by itself, instead of a signature. The term is seldom used except in reference to law and diplomacy.

PARAPHRASE, *par'-a-frase* (Gr., *phrasis*, speaking).—A rendering into more copious language of a book or particular passage. In the latter case, the meaning is more completely brought out by the use of amplified or more familiar terms, and a general expansion or explanation of the idea contained. "The Para-

phrases" is the popular name of versified passages of Scripture used in the Scottish Church.

PARASITE, *par'-a-site* (Gr., *sitos*, food).—The word strictly means, one who eats another, and by implication, one who eats at the expense of another. It is applied in the Greek comedies to an obsequious dependent who submits to any indignity his patron chooses to inflict on him, and who "eats his pudding and holds his peace."

PARENTHESIS, *par-en'-the-sis* (Gr., *para*, near, *en*, and *tithemi*, I place).—A sentence, or certain words inserted in a sentence, having no grammatical connection with the words which precede or follow, but serving to explain or qualify the meaning of the principal sentence. A parenthetical form of writing was much more common among ancient authors than among modern. A parenthesis is generally included in hooked or curved lines, thus (), but it is sufficient to make slight parenthetical clauses by commas, and dashes (—) are frequently employed. There is a distinction between parentheses and brackets []. (See BRACKET.)

PARIAH. (See CASTE.)

PARK, *park* (Sax., *pearroc*; Fr., *parc*).—A considerable space of pasture and wood land, adjoining to or surrounding the country residence of a man of wealth, devoted to purposes of recreation or enjoyment, but principally to the support of deer, cattle, and sheep. Originally parks were nothing more than portions of forest land, appropriated by the lord of the soil for the exclusive use of animals of the chase. At the present day, however, the principal use of a park is to give grandeur and dignity to the mansion. On its extent and beauty, and on the magnitude and architectural design of the house, chiefly depend the reputation and character of the residence. In London, public parks have long existed, and of late years have largely increased in number. Great attention has been given to the ornamental laying out of flower-beds and landscape-gardening generally. Public parks exist in or near many of the large towns throughout the United Kingdom. In a large number of cases, public benefactors have presented tracts of ground to the corporations of towns for the purpose of forming parks.

London Parks.—St. James's, 83 acres; Green Park, 71 acres; Hyde Park, 700 acres; Victoria Park, 300 acres; Battersea Park, 250 acres; Regent's Park (including Primrose Hill Park), 400 acres; Finsbury Park, 115 acres; Southwark Park, 63 acres; and several smaller plots of ornamental land and gardens, known as Parks. Greenwich, Richmond, and Bushey Parks, within easy reach of Londoners, are extensive tracts, with beautiful scenery and magnificent trees.

PARK OF ARTILLERY.—A term applied to the whole train of artillery belonging to an army or division of troops. In action, the term more directly signifies the place appointed by the general of an army to encamp the train of artillery, with the apparatus, ammunition, &c., as well as the battalion appointed for its service and defence. Strict order, and a convenient arrangement for breaking up, &c., are very important in a park of artillery.

PARLEY, *par'-le*.—A conference between the commanders of two opposed military forces, or their representatives, held under the protection of a flag of truce. The term is also applied to the trumpet-call which summon the parties to the conference.

PARLOUR, *par'-lur* (Fr., *parler*, to speak).—In monasteries, is the name given to a room where the inmates meet and converse, and, in ordinary language, is applied to that room of a small house which is fitted up for the reception of visitors. The term is less pretentious than "drawing-room," and more suggestive of domestic comfort and social informality.

PARODY, *par'-o-de* (Gr., *para*, beside, and *ode*, an ode).—A species of burlesque composition, in which the form and expressions, and the rhythms in verse, of a piece of serious writing are adapted in such a way as to excite ridicule. It had its origin among the Greeks, from whom the name is derived, and it corresponds to what in France is termed *travestie*. The imitation is much more close and exact than in any other species of burlesque writing, sometimes even a very slight change, perhaps only in a word, being sufficient to give a ludicrous turn to the whole piece. One kind of parody is when the defects and absurdities of popular writers are held up to ridicule, or their style and manner imitated and applied to low or mean subjects, as in the "Rejected Addresses;" another is, when a well-known piece, as a poem or song, is, by some changes effected on it, or by a change of subject, made laughable. Not only imitative skill is required in a good parody, but the faculty of wit also; for there should be a subtle, if humorous, association between the sentiment of the original and the burlesque sentiment of the parody.

PAROLE, *par'-ole* (Fr., *parole*, from *parler*, to speak).—A term used to denote oral, or verbal, word of mouth, and is opposed to written. Thus parole evidence is the oral testimony of witnesses, as opposed to written evidence or records. A parole contract is an agreement by word of mouth, as opposed to a written contract. In the strict legal acceptance of the term, however, everything is parole, even in writing which is not under seal.

In Military Language, a declaration made on honour by an officer. Prisoners of war are sometimes released on giving their parole, or word of honour, that they will not go beyond certain prescribed limits, or to take service again during the existing war. An officer breaking his parole is accounted dishonourable, and to have forfeited all claim to be considered a gentleman. The term is also applied to the watchword in camp or garrison.

PARONOMASIA, *pa-ro-no-mai'-se-a* (Gr., *para*, near, and *onoma*, a name).—A figure in which different ideas are expressed by words of similar sound, or of the same extraction, in order to make the difference more striking: as, "Not friends, but fiends are here!" "Defence, not defiance."

PARTERRE, *par'-tar-e'*.—The open part of a garden in front of the house, in which flower-beds and a closely-cut lawn are arranged according to a plan.

PARTHENON, *par'-the-non*.—The temple of the goddess Athens at Athens. (See GREEK ARCHITECTURE.)

PARTICIPLE, *par'-tis-e-pl* (Lat., *participium*, from *pars*, part, and *capio*, I take).—A part of speech which partakes both of the properties of an adjective and of a verb. It may be considered as an adjective with the idea of time added, or as a verb without the idea of affirmation. In English there are two participles, the

present and past; the former ending in *ing*, the latter in *en*, *ed*, *d*, or *t*.

PARTICLE, *par'-te-kul* (Lat., *particula*).—A term applied to such parts of speech as are incapable of any inflection: as prepositions, conjunctions, &c.

PARTISAN, *par'-ti-san*.—A halbert or pike formerly carried by men-at-arms.

Partisan Warfare.—A harassing warfare carried on by bodies of light troops, who interrupt supplies, cut off stragglers, and otherwise impede the movements of an enemy, without taking part in any regular action.

PARTITION LINES, *par'-tish-un*.—In Heraldry, partition lines divide the shield in direction corresponding to the ordinaries. These lines are not always plain, but are used in a variety of forms.

PARTS OF SPEECH.—The classes into which the words of a language are divided, according to their value in a sentence. The essential parts of speech are the noun, adjective, pronoun, verb, adverb, preposition, and conjunction. In many popular grammars the article and interjection are included, but more scientific writers consider the article to be a form of pronoun, and the interjection as not entitled to be considered a part of speech. When a pupil names the class to which each word of a sentence belongs, he is said to "parse" it.

PARVISE, *par'-vees*.—A porch, or open space, in front of the door of a church.

PASHA, PACHA, *pa-shah'* (Persian, *pa*, foot or support, and *shah*, ruler).—A title given in the Ottoman empire to governors of provinces, or military and naval commanders of high rank, but originally limited to princes of the blood. The distinctive badge of a Pasha is a horse's tail, waving from the end of a staff, the three grades of the dignity being indicated by a corresponding number of tails. In old books we often meet with allusions to "bashaws of three tails," bashaw being a now obsolete form of spelling the word.

PASIGRAPHY, *pa-sig'-ra-fe* (Gr., *pas*, all, and *grapho*, I write).—A term used to denote an imaginary universal language that might be understood by all nations. However fanciful such an idea may seem, there have not been wanting philosophers of distinction to maintain its possibility, and even to attempt to carry it out, the idea appearing to have originated with Leibnitz. Various attempts have recently been made to establish a universal alphabet, and a series of conferences were held regarding it at the residence of Chevalier Bunsen, in London, in 1854. No practical result has been arrived at.

PASQUINADE, *pas'-kwin-ade*.—A lampoon, or satirical writing, issued anonymously or under a fictitious name, for the purpose of libelling a person or making him an object of ridicule. In the 15th century a humorous tailor (or cobbler, according to some), named Pasquin, lived at Rome, and shortly after his death a mutilated fragment of a statue, which had been dug up, was placed near the shop the satirical tailor had occupied, and his name was popularly given to the piece of sculpture. It became the fashion among the wits and scandal-mongers of the city to affix to this statue libellous placards and political

squibs, and the custom continued till a few years since. The dignitaries of the Romish Church and priests generally were peculiarly the objects of these attacks.

PASS, *pass*.—In general language, a narrow passage or difficult place of entrance. In a military sense, it signifies a strait or narrow defile, which, when properly defended, renders the entrance into a country very difficult; and the term is also applied to a written permission from the commanding officer to pass the lines.

PASSANT, *pas'-son(g)*.—A term used in Heraldry to describe an animal when represented in a walking condition. When depicted walking with the full face towards the spectator, it is said to be *passant gardant*.

PASSING-BELL. (See **BELL**.)

PASSING-NOTES.—In Music, an intervening note, not belonging to either chord, may be used to assist the progression from one chord to another; and such a note is called a passing note, or note of transition.

PASSION-CROSS, *pass'-un*.—In Heraldry, a cross of the form of the cross on which our Saviour suffered, and when elevated on three steps (which, say some heraldic writers, represent the three Christian graces, faith, hope, and charity) is known as a Cross Calvary.

PASSION-PLAY. (See **MORALITIES**.)

PASSIVE VERBS. (See **VERBS**.)

PASTON LETTERS, *pas'-ton*.—A collection of the correspondence of a Norfolk family, giving a picture of social life in England in the 15th century. They were edited by Sir John Fenn, and published in five quarto volumes, between 1787 and 1823. Part of the originals is now the property of the British Museum. Additional letters have since been discovered.

PASTOR, *pas'-tor* (Lat., a shepherd).—A term applied by some religious writers to a bishop of a diocese, or the priest of a parish, whose people are, by the same figure, termed their flock; but the name is more generally applied in popular language to the minister of a dissenting congregation.

PASTORAL, *pas'-to-ral*.—In Literature, the name of a species of poetry, which is devoted to descriptions and delineations of country life. (See **IDYLL**.)

PATOIS, *pat'-wo(r)*.—A French term applied to the dialects of a language peculiar to certain districts. (See **DIALECT**.)

PATONCE, *pa-tonse'*.—In Heraldry, a cross with the terminations of the arms expanding.

PATROL, *pat-rol'* (Fr., *patrouille*).—A detachment of from four to eight soldiers, charged to march through the streets of a garrison town, in order to see that all is quiet, and to prevent disorder. The term patrol is likewise applied to the mounted police, who ride round the suburbs of London and provincial towns at night to watch the roads and preserve the peace.

PATRON, *pa'-tron*.—One who protects another, or who promotes his interests. The word comes from the Latin *patronus*, which meant a man who had others, called *clients*, depending upon him.

PATRONYMIC, *pa-tro-nim'-ik* (Gr., *pater*, and *onoma*, a name).—A name which designates a person by referring to his father, or some of his ancestors; as *Pelides*, applied to *Achilles*, as being the son of *Peleus*. Such words do not occur in English, but they are common among the classic poets of antiquity. In ordinary language, the term is equivalent to surname.

PATÉE CROSS, *pat-tai'* (Lat., *patulus*, spreading).—In Heraldry, a cross, the arms of which spread out, flattened at the ends; also called *Cross Formée*.

PAUL'S, ST., SCHOOL.—An educational establishment in London, founded in 1512 by John Colet, Dean of St. Paul's, for 153 boys "of every nation, country, and class." The number was taken from the fishes caught by Peter (John xxi. 11). The first schoolhouse, in St. Paul's Churchyard, was destroyed by the great fire of London in 1666; the second, built by Wren, was taken down in 1824, and the present building erected on the site. The school will shortly be removed to a more open situation at West Kensington.

PAVILION, *pa-vil'-yun*.—A building, or portion of a building, of a tent-like form, usually having a domed roof. George the Fourth's famous so-called pavilion at Brighton is a strange mixture of Oriental and nondescript architecture.

PEAN, *pe'-an* (Old French, *pannes*, furs).—A fur borne in Heraldry differing from ermine in the ground, being black and spots of gold.

PEDAGOGY, *ped'-a-go-je* (Gr., *pais*, boy; *agogos*, leader).—A word borrowed from the German *pedagogics*, meaning the science of education, and is, in modern times, often applied synonymously with the teaching of youth. With the ancient Greeks, *pedagogue* designated a slave to whom the care of a boy, from the earliest age after infancy, was intrusted, until he attained his seventeenth or twentieth year.

PEDAL, *ped'-al* (Lat., *pedalis*, from *pes-pedis*, foot).—A kind of foot-key, employed in various musical instruments, as the organ, harmonium, pianoforte, harp, &c., to modify the tone. Pedals were invented in the 15th century, by a German named Bernhard.

PEDESTAL, *ped'-es-tal* (Lat., *pes*, a foot, and Gr., *stulos*, a column).—The lower part of a column or pillar. It consists of three principal parts: a square trunk, which makes the body; a cornice, the head; and a base, the foot of the pedestal.

PEDESTRIANISM, *pe-des'-tri-an-ism*.—A term applied to exhibitions of the power of walking at a rapid pace, for long distances, or against time. Some remarkable instances are recorded in ancient history; and among moderns, the pedestrian powers of some of the North American Indians are remarkable. It is now a recognized department of athletic sport, and foot-races are among the most common of muscular exercise. A new feat of endurance was successfully attempted in 1809, by Captain Barclay, who walked 1,000 miles in 1,000 successive hours, a mile in each hour. This feat has been repeated even by women, and surpassed by some pedestrians. In 1876 Weston, an American, attempted the feat, at the Agricultural Hall,

London (he had previously achieved the same in his own country), of walking 500 miles in six days. He failed at the time, but shortly afterwards walked, in a contest with O'Leary, 510 miles, his competitor beating him by 10 miles in the same time. This wonderful performance was afterwards surpassed by Corkey, Brown, and Rowell, the distance of more than 550 miles being covered in the time.

PEDIGREE, *ped'-i-gre*.—Lineage. (See *GENEALOGY*.)

PEDIMENT, *ped'-e-ment* (Lat., *pes*, a foot).—In Architecture, a kind of low pinnacle, serving to crown porticoes or finish a frontispiece. It is also placed as an ornament over gates, doors, windows, niches, altars, &c. The pinnacles or roofs of ancient houses first suggested to architects the idea of the pediment. The parts of the pediment are the tympanum and its cornice. The first is the panel or area of the pediment, enclosed between the cornice which crowns it and the entablature, which serves as a base. The heights of pediments are seldom more than one-fifth of the length of their bases. They are frequently ornamented with sculpture.

PEEL TOWER.—An old tower of defence frequent in the border country between England and Scotland. Peels were square, with turrets at the angles, and the door usually at a height from the ground.

PEGASUS, *peg'-a-sus*.—A winged horse, one of the mythical creatures of the Grecian mythology, supposed to have sprung from the blood of the Gorgon Medusa.

PEHLEVI *pay'-le-vi* (language of heroes).—An ancient West-Indian idiom, and probably the primitive national language of the ancient Medes and Persians. The remains of the language are found in inscriptions on coins, and in some books relating to the religion of Zoroaster. (See *PERSIAN LANGUAGE AND LITERATURE*.)

PELASGI, or PELASGIANS, *pel'-as'-je-ans*.—The name given to the tribes which peopled a great part of Southern Europe, and part of Asia Minor in pre-historic times. They appear to have been an intelligent and active people, addicted to agricultural pursuits, but able also to navigate the seas. Remnants of their architecture are still in existence, and to the style of it the name *Cyclopean* has been given. (See *CYCLOPEAN ARCHITECTURE*.)

PELICAN, *pel'-i-kan*.—In Heraldry, the pelican is represented with wings elevated and wounding her breast with her beak to feed her young, in accordance with the once popular notion respecting the habit of the bird.

PEMBROKE COLLEGE, OXFORD, *pem'-broke*.—This college, originally known as Broadgates Hall, belonged to St. Frydeswyde's Priory and to the monastery of Abingdon. On the dissolution of the monasteries in the reign of Henry VIII., it was given to Christ Church; but in 1629 James I. made it a college, and it took its name from the Earl of Pembroke, who was then chancellor. There are 10 fellowships, open to all persons who have passed the examinations for the degree of B.A. Two of the fellows are entitled Shepherd Fellows, one of whom must be called to the bar as soon as he lawfully can after his election, and the other must proceed as soon

as he lawfully can to the degree of Bachelor and Doctor of Medicine. Four of the 10 fellows must be in holy orders, and all the fellowships are vacated by marriage. The college offers from three to five scholarships annually. There are 5 open scholarships, varying in value from £52 to £90, and 14 close, the recipients of which are candidates from various schools and the Channel Islands. Some of these scholarships are thrown open if there is a lack of fit candidates from the favoured places. The value ranges from £60 to £90, and most of them are tenable for five years.

PEMBROKE COLLEGE, CAMBRIDGE.—This college was founded in 1347 by Mary de St. Paul, widow of Aymer de Valence, Earl of Pembroke. Her married life was one of the briefest on record, for on the day of her nuptials, the bridegroom was killed in a tilting-match held in honour of the occasion. Henry VI. was a liberal benefactor to the college. There are 13 foundation fellowships, and four of the fellows must be in holy orders. Marriage vacates the fellowship, unless the holder of it is a University Professor of less value than £800 a year; and it is also vacated if the fellow comes into possession of property of double the annual value of the fellowship. There are also two by-fellowships. There are 23 foundation scholarships, varying in value from £20 to £50 yearly; and there are four other scholarships (£28 to £50) restricted to certain schools, but should there be no properly qualified candidate, the scholarships are at the disposal of the master. There is an exhibition of the yearly value of £70 for a scholar educated at Blackrod School, Lancashire, who also receives from the college an additional exhibition of £5 per annum.

PENATES, *pen'-ay-teez* (Lat.).—Household gods. (See also **MANES** and **LARES**.) "Lares and penates" is a term often used now to signify one's household valuables. (See **LARES**.)

PENDANT, or **PENNANT**, *pen'-dant* (Fr., from Lat., *pedeo*, to hang).—A term possessing several meanings. In Gothic architecture, those pieces of ornamented stone hanging down from the intersections of a groined roof are so termed. Some exquisite specimens of these may be seen in St. George's Chapel, Windsor, and in Henry the Seventh's Chapel, Westminster. In nautical language, the term signifies a long narrow streamer, cut at the end into two points, commonly called the swallow's tail, which hangs from the masthead of a ship; and a broad pendant, shorter and broader than the others, is carried at the masthead of a commodore's ship, a first-class commodore hoisting his pennant at the fore and a second-class at the mizzen. In Heraldry, it indicates anything hanging down, as the badge of an order pendant to the chain or ribbon. Those ornaments, usually composed of gold or precious stone, worn suspended from the ears by females, and sometimes by men, are also called pendants.

PENDENTIVE, *pen-den'-tive*.—The portion of a vault resting on one pier, and extending from the springing to the apex. The term is also applied to an arch which cuts off, as it were, the corner of a square building internally, so that the superstructure may become an octagon or a dome. In mediæval architecture, such arches when under a spire in the interior of a tower were known as squinches.

PENNALISM, *pen'-nal-ism* (Lat., *enel*, a

pence).—A system once prevalent in the Protestant German Universities, very similar to the practice of Fagging in English Public Schools. (See **FAGGING**.) The system, a very brutal one, so far as the younger pupils were concerned, and very brutalizing to the elders, originated early in the 17th century, and it was nearly a hundred years afterwards that the universities were able, by uniting in severe measures, to check the practice.

PENNON, *pen'-non*.—A small pointed flag, fixed by the knights of the middle ages to their lances. A long streamer-like flag was known as a *pennoncelle*.

PENNY WEDDING.—A wedding in Scotland, at which the invited guests paid a small sum to defray the expenses of the festivities, and to leave over an amount for the newly married couple. The custom is now obsolete, having been denounced by the Kirk as leading to "profane minstreling and promiscuous dancing."

PENTAMETER, *pen-tam'-e-ter* (Lat.).—A common species of Greek or Latin verse, so called from its containing the number of five complete metres; but it has properly six feet, of which the third and sixth are incomplete. In the first half, dactyls and spondees are commonly intermixed; but in the second half the two first feet must be pure dactyls. This verse is used only as an appendage to the hexameter, and together they constitute the elegiac verse. Originally it was only employed on mournful or amatory subjects, but in the course of time was turned to lighter topics.

PENTASTYLE, *pen'-ta-stile* (Gr., *pente*, five; *stylos*, column).—The name given to a building having a portico with five columns.

PEPYS'S DIARY, *peps*. (See **DIARY**.)

PERCLOSE, *per-cloz'*.—An enclosure in a church, separating a tomb or chapel from the other parts of the building.

In Heraldry, a perclose means the same as a demi-garter—i.e., a half-garter with a buckle.

PERFECT TENSE. (See **TENSE**.)

PERI, *pe'-ri*.—A fanciful creature, supposed in the mythology of some Eastern countries to have been the offspring of evil spirits. It is intermediate between angels and demons, and is either male or female; the latter beautiful beings resembling the fairies of our poetical literature. They are immortal, and their life is passed in the enjoyment of all imaginable delights; but they are forbidden to enter Paradise. Moore's graceful poem on this subject is well known.

PERIOD, *pe'-re-od* (Gr., *períodos*, a circuit).—In general language, a division of time, or the events occurring in it. (See **CYCLE**.)

In Literary Composition, a period, or sentence, is a series of passages logically connected. Periods should not be too long; but it is difficult to fix any distinct limit. In the construction of a period, the chief idea should be made prominent, while secondary ideas should be expressed according to their importance. The musical and rhythmical arrangement of a period is also of great importance.

PERIODICAL, *pe'-ri-od'-i-kal*.—A publication appearing continually at regular intervals. (See **MAGAZINE**, **NEWSPAPER**, **TRANSACTIONS**, and **REVIEWS**.)

PERIPHRAISIS, *per-i'-fra'-sis* (Gr., *peri*,

about, and *phrazo*, I speak).—A circuitous form of words much affected by orators to avoid common and trite modes of expression, and also to make things be conceived which are not proper to name; as when it is polite, for instance, to suppress names, or only proper to intimate or design them.

PERITONEUM, *pe-ri-to-ne'-um* (Gr., *periteino*, I stretch round).—The thin serous membrane lining the abdominal cavity, and enveloping the contained organs, so as to keep them in their proper places. Like the other serous membranes, it is an enclosed sac, covering, but not containing, the organs in its cavity, with its internal surface smooth and shining, and moistened by a serous fluid for aiding the natural movements of the organs upon each other. The folds which surround the small intestines constitute the mesentery; that which hangs down from the stomach, and is then reflected upwards and backwards to the colon, is the omentum. The peritoneum is liable to inflammation exceedingly painful and dangerous, from its extent and connection with important organs, known as *peritonitis*, which may exist either as an acute or chronic disease.

PERJURY, *per'-ju-re* (Lat., *per*, and *juro*, I swear).—The offence of swearing falsely to facts in a judicial proceeding. It is defined to be a crime committed when a lawful oath is administered in some judicial proceeding to a person who swears wilfully, absolutely, and falsely, in a matter material to the issue or point in question. To constitute perjury, in the strictly legal sense, it is necessary that the party be lawfully sworn to speak the truth by some court or magistrate having power to administer an oath. The perjury must also be corrupt (that is, committed *malò animò*), wilful, positive, and absolute, not upon surprise, or the like; it must also be in some point material to the question in dispute. The view taken of perjury by the law of England is not as being the violation of an oath, but as an attempt to defeat the administration of justice. Subornation of perjury is the offence of procuring another to commit perjury, and is equally punishable at law. Anciently, the punishment of either at common law was death; afterwards, banishment or cutting out the tongue; then forfeiture of goods; and now it is fine and imprisonment, with the addition of hard labour. Where a solemn declaration takes the place of an oath, it is equally perjury to declare falsely and is subject to the like punishment.

PERMUTATIONS, *per-mu-tai'-shunz* (from *per*, and *muto* I change).—The different orders which can be formed out of any number of things, with regard to position, when all are taken at once. If we want to find the different number of changes which may be rung upon seven bells, taken all together, we multiply the order of bells into one another, and the changes will be equal to— $1 \times 2 \times 3 \times 4 \times 5 \times 6 \times 7 = 5,040$.

PERPETUAL CURE.—A clergyman appointed by the lay proprietor of a benefice (in cases where the bishop does not nominate a vicar) is known as a perpetual curate. He enters on his office without induction or institution, and requires only the bishop's license. Perpetual cures are also created by the erection and endowment of a chapel subject to the principal church of a parish. The district churches which have been erected under recent Acts of Parliament are

made perpetual cures, and their incumbents are corporations.

PERSEVERANCE OF THE SAINTS.

—A theological doctrine held by Calvinists, with Presbyterian Congregational and Baptist Churches, but denied by the Methodists, and left practically as an open question in the articles of the Church of England. The doctrine is thus stated in the Westminster Assembly's Confession of Faith: "They whom God hath accepted in His beloved, effectually called and sanctified by His Spirit, can neither totally nor finally fall away from the state of grace, but shall certainly persevere therein to the end, and be eternally saved." According to the Calvinistic theory of regeneration, the soul is chosen by God for eternity. Its conversion and regeneration are wholly the work of the Holy Spirit; and the work, having been begun by God for His own good pleasure, will not and can not be abandoned by Him. The advocates of the doctrine admit that the "Saints" may temporarily fall away into sin, and suffer loss by their inconsistency and back-sliding, and also that those cases in which seeming Christians abandon their profession and hope altogether are explained by the declaration that the conversion in such cases was a spurious one. The true doctrine, it is claimed by those who hold it, is one of perseverance in holiness, giving no encouragement to a confidence of final salvation which is not connected with a present and ever increasing holiness.

PERSIAN ARCHITECTURE.—The few remains of early Persian architecture show that the palaces and public buildings were of a magnificent character, differing, in many important particulars, from the Assyrian and Babylonian styles. A writer in the *Encyclopædia Britannica* says, "The greater part of the remains are columnar, not an edifice is built on the Assyrian plan, and there is little to remind us of Assyria except the human-headed bull. The doors and windows somewhat resemble those of Egypt. They have the same plain architrave, the large roll, cavetto (concave moulding), and filled at top. But the sides of the portal are straight; there are no massive pylons, and the whole character of the columns, bases, and capitals is utterly unlike any known remains of Egyptian or Assyrian art." The larger buildings had courts, surrounded by colonnades, the columns and beams being of wood, coloured, and in some instances coated with metal, and the roof was sloping. Some of the grandest architectural remains in existence are those of buildings at Persepolis and Susa, erected in the 5th century, before the Christian era. Messrs. Texier and Flandin have made measured drawings of the remains of one of the chief buildings at Persepolis; and we avail ourselves of an abridgment of the results of their examination, as illustrating the superb character of the palaces occupied by the early Persian monarchs. The existing buildings occupy a remarkable position on an elevated platform (partly, it would seem, artificial) at the foot of a steep rock, in the face of which were cut the tomb-chambers of the Persian kings. The platform was 1,425 feet long on the west side, and 926 feet on the north, and it was raised about 40 feet above the level of the adjoining country, faced with a wall built with stones of an immense size, and approached by a grand flight of steps. These steps led to

the Propyleæum, or Great Hall of Xerxes. There remain two grand gateways, 24 feet apart, with porticos more or less perfect between them, of four columns, 45 feet high. The gateways had openings of 13 feet, and each of the piers was partly composed of human-headed bulls 19 feet high, strikingly like the Assyrian sculptures recently discovered. It is doubtful whether this building was roofed or only an open portico. Beyond is the grand palace, approached by a noble staircase. In the great hall of this palace were 72 columns, from 60 to 67 feet high. Only 10 are now standing, but the bases of the greater number remain. The tall shafts are each composed of only four great marble blocks. The bases are richly carved, and the capitals are formed by a double-headed bull, with a deep cavity between the heads, evidently intended to hold a beam. At Susa, Artaxerxes Mnemon, son of Xerxes, built a palace very similar in general plan to that at Persepolis. Careful consideration of the remains of this building, as also of that at Persepolis, led Sir Robert Ker Porter, and, at a later period, Mr. Loftus, to suppose that there were no enclosing walls, but the sides were screened with curtains, and that the roof was flat, with a large opening in the centre, protected by an awning. The description of the palace of Ahasuerus (otherwise Artaxerxes), in the first chapter of the Old Testament book of Esther, which is supposed to apply to the royal edifice at Susa, supports this supposition: "The king's palace, where were white, green, and blue hangings, fastened with cords of fine linen and purple to silver rings and pillars of marble." Two other fine buildings at Persepolis, however—the palaces of Darius and Xerxes—were enclosed, and proved by the remains existing. Of the domestic structure of ancient Persia no traces remain.

PERSIAN LANGUAGE AND LITERATURE.—Modern Persian, the most copious, sonorous, and flexible of Oriental languages, originated about the 11th century in a general infusion of the Parsee, or Farsi, previously spoken exclusively in the south-western provinces. The oldest languages of which any trace remains in Persia are the *Zend* (East Iranian, or Bactrian), in two dialects, which became extinct in the 3rd century before the Christian era; *Ancient Persian*, the principal remains of which are found in the cuneiform inscriptions at Behistun and some other localities (see **CUNEIFORM**), and which had a considerable affinity with *Zend* and *Sanscrit*; *Pehlevi*, in use from the 3rd to the 7th centuries of our era, containing a large number of Semitic words, and with less variety in inflections and terminations than the *Zend*. In course of time, partly as a consequence of the end of the dominion of the Sassanides, who had brought into the language the foreign element, consisting largely of Chaldean words and idioms, these latter disappeared, and there was a partial return to the purer Iranian of the *Zend*, in which some of the earliest books of the Zoroastrian religion were written. The language now adopted was known as *Pazend*, to be in its turn superseded by the Parsee, mentioned above. Modern Persian, as the language now spoken may be named for the sake of distinction, has existed as the language of ordinary life and of literature for nearly 800 years. There are many idioms, but the purest Persian is spoken at Shiraz and Ispahan, and preserved in the writings of Hafiz and the other principal Persian authors. Nearly half of the

words are of Arabic origin; and the elaborate inflections of the *Zend*, on which the language is partly based, have been replaced by combinations of auxiliary words, which add copiousness and variety of expression. The grammar is very simple. There is no gender distinguished in declension; the plural (except in the case of a distinction between animate and inanimate beings) is always formed in the same manner; and there is a very slight variation of inflection in the different cases. There is neither a definite nor an indefinite article. The tenses are generally compounds of the past participle and auxiliary verbs, as in most modern languages; and the syntax presents no difficulties, the construction of sentences following the natural order. There have been three different stages of Persian writing. The earliest is in the cuneiform character; but there was, in all probability, another alphabet for common purposes, and that seems to have originated other alphabets, adapted to the *Zend* and *Pehlevi* languages. At a later period, the Arabic alphabet was adopted, but enlarged by points and signs to indicate sounds existing in the Persian, but not in the Arabic language. The chief literary productions in the more ancient forms of Persian refer to the Zoroastrian religion; but the books have been imperfectly copied, and the most diligent scholarship has found difficulty in arriving at clear conclusions respecting the construction of the old tongues. Modern Persian literature originated in a great national reaction after the Mohammedan conquest in the 7th century, which produced a number of native writers of great ability—grammarians, historians, poets, philosophers, and men of science—who availed themselves of the Arabic tongue of their foreign masters to enrich their own language. Two centuries later, when the Mohammedan dynasty was superseded by native rulers, there was a great development of literature, which, in the course of the succeeding five centuries, flourished with remarkable vigour. Chief among the poets who adorned the earlier years of this long and cultivated period, was the blind Abul Hasan Rudégi, who translated Bidpai's Fables from the Indian language, and is the author of an immense amount of short poems, very few of which remain. A princely poet, Kabus, who lived in the 10th century, wrote a long poem on rhetoric, besides other works; and about the same time, it is recorded that there were about 400 court poets, not, probably, all of very marked ability, but having in their ranks some writers of undoubted talent, among them Ferruchi, the author of the first work in Persian on the rules of metre, and Firdusi, who produced a great national epic, the "Book of Kings." Esedi, and Anhad Addin Enweri (the latter a brilliant satirist as well as poet), marked the 10th and 11th centuries, and about a hundred years later was Nizami, who achieved a brilliant reputation, not limited to his native country, as founder of romantic poetry. Much of the poetry of this period was marked by the mingling of allegories of a sensuous kind, and songs of wine and love, with theological teaching and the mysterious union of the soul with the Divine essence. The mystical tendency was most strongly developed in Ferid Eddin Attar, who, born in 1216, lived for 114 years, and whose works for centuries taxed the ingenuity of commentators. He was the author, not only of poems, but of an elaborate series of the lives of Persian saints. As a mystic, he was

more than rivalled by Djâlal Eddin Rûmî, a contemporary writer, who founded an order of dervishes still existing, and whose long poem on the contemplative life is read and studied now. Sâdî of Shirâz, who wrote at the same time, was the first and greatest of Persian didactic poets, and his chief works are well known to European students and admirers of thoughtful and graceful literature. Hâfiz, the sweet singer, the "Sugar-lipped," who wrote in praise of love and wine, with Oriental sensuousness and Greek grace, the great ornament not only of the 14th century in which he lived, but of the whole range of Persian poetical literature, is even better known to the western world than Sâdî, and his name is nearly as typical of that style of poetry as was that of the Greek Anacreon, or the Roman Catullus. The next great name in the poetical literature of Persia is that of Djâmi, who died at the close of the 15th century, distinguished as a writer of romantic, didactic, mystical, and lyric poetry, and as a prose historian and collector of models of epistolary writing. With him ended what may be described as the great period of Persian poetry. There were many old historians and chroniclers, but their works, as usual with productions of a similar kind in all countries, contained, at the least, quite as much myth and legend as authentic narrative; and the first writer who can to any considerable extent be trusted is Eddin, who wrote in the latter half of the 13th century and the beginning of the 14th. He collected the histories of other countries, especially of those under Mohammedan rule, wrote an account of the existing sects, and summarized the geographical knowledge of his time. In more recent times, there have been several historians of great merit. Modern Persian literature has been more concerned with translations from the Arabic, Turkish, Indian, and Greek, than with the production of works of standard value. The chief theological and scientific books are written in Arabic.

PERSONIFICATION, *per-son-e-fik-ai'-shun*.—A term applied to the speaking of inanimate things as if they were persons. The use of this figure of speech is very natural and extensive, and, in some cases, of great value in literary composition, although it has occasionally been carried to a ridiculous excess, especially by the minor poets of the last century. There is a wonderful proneness in human nature, under emotion, to animate all things. Thus, when we say, "the morning *smiles*," or "the ground *thirsts* for rain;" when we speak of "disease being *deceitful*," or of "ambition being *restless*," such expressions show the facility with which the mind can accommodate the properties of living creatures to inanimate things, or to *abstract* conceptions of its own forming. The figure called by rhetoricians *Prosopopœia* is, literally, personification.

PERSPECTIVE, *per-spek'-tiv* (Lat., *perspicio*, I see).—The art of representing objects, on a given surface, in such a manner as to affect the eye when seen from a certain position, in the same way that the object itself would when the eye is fixed on the point in view. It therefore enables the artist to represent objects on a definite surface, as if that surface were transparent, and the objects were seen through it. Perspective, as an art, owes its origin to painting, and especially to that branch of it which was employed in the decorations of the theatre, where landscapes were principally introduced, which would have looked

unnatural if the size of the objects had not been somewhat proportioned to their distance from the spectators. The only ancient writer who gives any account of the antiquity of perspective is Vitruvius, who states that the first writer on the subject was Agatharcus, an Athenian, who wrote on the subject when he prepared a tragic scene for a play exhibited by Æschylus. It seems probable, however, that long before that time the principles of perspective were known to the ancients. In the 12th century, John Tzetzes speaks of perspective as if well acquainted with its importance; and the Greek painters, who were employed by the Venetians and Florentines in the 13th century, seem to have brought some knowledge of it into Italy. The disciples of Giotto, who lived in the 14th century, are commended for observing the rules of perspective more than their predecessors had done. The Arabians did not neglect this art. Alhazar treated of the subject as early as 1100. In this country, Friar Bacon and John Peckham, archbishop of Canterbury, wrote on perspective with wonderful accuracy, considering the period at which they lived. After that time, many works on perspective were written, especially by Italians; and in modern times, writers on the subject have been very numerous. Since all the rays of light proceed from objects to our eyes in straight lines, it must be evident that perspective rests on optical principles; and as the drawing of the form of an object is an arrangement of lines and angles according to geometrical principles, perspective may be looked upon as a branch of geometry. This division of the art differs essentially from that portion which relates to the gradation of colours, according to the distance of the observer. The former is called mathematical or linear perspective, and the latter aerial perspective. In drawing an object upon a piece of paper or plane surface, the contour merely represents such an intersection of the visual rays as would result on a glass put in the place of the paper. When the situation of an object on the *other* side of the glass is given, then its delineation on the glass itself wholly depends on the situation of the eye on *this* side of the glass—that is, in the rules of perspective. If, for example, a spectator be looking at a landscape through a pane of glass, he will perceive the shape, size, and situation of each object apparent on the glass. Those objects which are near the spectator will occupy larger spaces on the glass than when they are at a greater distance; if they are parallel to the window, their shapes will be parallel; if they are oblique, their shapes will be oblique; and so on. If he alter his position, the situation of the objects on the glass will be altered also; if he raises his eyes, the objects will be raised, and the reverse if he lowers them; while in every position the horizon will appear to be on a level with the eye. Now, if the head could be kept fixed, and the objects thus seen on the glass transferred to it by means of a pencil, a true perspective drawing would be the result. As, however, drawing on transparent planes is very seldom practised, it has been found necessary to deduce from optics and geometry certain laws for drawing representations of visible objects on opaque planes. The application of these laws constitutes the art of perspective. The *point of sight* is the point in a picture which is exactly opposite to the eye of the beholder, and is always situated somewhere on the line of the horizon. The height of this *horizontal line*, and therefore of the point of sight, is dependent on

the height from which the spectator is supposed to take his observation, which shows the horizontal line varying according to the height of the eye. In copying any scene from nature, it will be seen that the line of the horizon always maintains the same level as the eye of the draughtsman. The space comprised between the horizontal line and the base of any picture, whether it consist of land or water, or both, is called the *ground-plane*; which will represent a space more or less extensive according as the spectator's position, and consequently the horizontal line, may be elevated. The spectator's position is termed, in perspective, the *station-point*. In many cases where objects, as trees, houses, &c., intervene, the view of the horizon will be intercepted, and it *will* therefore be invisible from the station-point. The horizon still existing, however, though not visible from the station, its position must be denoted by an imaginary, dotted, or occult line extending across the drawing, as on it will be found the proper situations of the point of sight and other vanishing-points. If, when looking through a window, we could trace with some instrument on the surface of the glass the lines of the objects seen through it, such lines would constitute a true perspective representation of those objects. Now, a window is a plane surface, perpendicular to the ground plane of such representation; and as a window represents, so any picture in its frame is supposed to represent, the objects shown therein, exactly as they would appear if the frame were glazed, and the objects beyond it were marked upon the surface of the glass. The space included by the frame, and here supposed to be filled with a flat sheet of glass, is called the *plane of delineation*, or, by some draughtsmen, the *plane of the picture*. *Aerial Perspective*.—As objects apparently diminish in size according to their distance, it follows that at a certain distance small objects, and at a greater distance those of somewhat larger size, will be so diminished as to be imperceptible. Lines, therefore, near the eye, of great thickness (speaking artistically, not with strict geometrical truth), lose a portion of their apparent thickness as they recede from it, till they are altogether lost in the distance, and if prolonged, would fade long before they reached the horizon. For this reason, objects at a certain distance lose a portion of their distinctness, and become more or less confused with each other. There is also another reason: the further an object is removed from the spectator, the greater is the quantity of air between it and him through which it has to be viewed; and though the atmosphere is a highly rare medium, it still possesses a certain degree of density which tends still further to diminish the distinctness of distant objects, in proportion to the quantity of air through which the visual rays have to pass. In certain states of weather, such as a damp or cloudy day, this density is increased, and distant objects become consequently less distinct. These circumstances being duly kept in view by the artist, and having their proper influence on the strength of his lines and depth of his tints, materially enhance the perspective effect of his drawing.

PESTALOZZIAN SYSTEM, *pes-ta-lot'-se-an*.—A system of teaching young children, introduced by Johann Heinrich Pestalozzi, in the early part of the present century. His theory was that objects, and not lessons about objects, were the readiest means of imparting knowledge to the

infantile mind. He taught elementary arithmetic by practically showing that so many objects, added together, amounted to so many altogether, and so on, by taking away, multiplying, or dividing, instead of making the various rules matter of figures and abstract reasoning, which the child-mind can only partially comprehend, and that with difficulty. The religious training of children, instead of merely religious instruction, was advocated by him; and his methods form the basis of elementary teaching in nearly all the normal schools in Europe.

PETARD, *pet-ard'* (Fr.).—A military engine, consisting of a half-cone of thick iron, loaded with powder. It was formerly much used for breaking down gates, bridges, barricades, &c. When about to be used, it was screwed to a thick plank, and suspended before the object to be burst open. Petards were first used by the French Huguenots in 1579, at the siege of Cahors. They are now no longer used in warfare, as gunpowder in loose bags has been found equally efficacious.

PETER'S, ST., COLLEGE, CAMBRIDGE.—This is the oldest existing college in England, having been founded in 1257 by Hugh de Balsham, Bishop of Ely, who, in 1282, endowed it with a maintenance for a master and 14 fellows. It is familiarly known as Peter-House. The fellows, the number of whom has not been increased, are elected from among the graduates of the college, or, if the master and fellows at any time think fit, of the University. Three of the fellows, at least, must be in holy orders. There are 21 scholarships, varying in value from £20 to £30 yearly, some open to students who have not begun residence in the University, and some adjudged to students of the college according to the results of the Midsummer examination. The scholarships are tenable until the scholar is of standing to take the B.A. degree; but the period of tenure may be prolonged, or a second scholarship given, or a more valuable scholarship substituted for one of less value, in consideration of special merit. There is an exhibition from the Company of Clothworkers and one from the Company of Ironmongers.

PETRONEL, *pe'-tro-nel*.—An old form of the pistol, long since superseded by lighter and more convenient forms of the weapon.

PHALANX, *fal'-anks*.—A body of troops among the ancient Greeks, armed with spears, and arranged in the form of a square. It first consisted of four thousand men; but Philip of Macedon doubled that number, and it was afterwards quadrupled. In the Macedonian phalanx, the men stood close together, sometimes with their shields locked, in ranks of several men in depth, displaying in front a row of extended spears. The momentum of the phalanx at the outset of the charge usually decided the battle. It was at length overmatched by the combined strength and activity of the Roman legion.

PHALLUS, *fal'-lus*.—A representation of the male generative organs, displayed at festivals in ancient Greece, and worshipped in many places in the primitive ages of the world. The Greek festival consisted of a procession, in which the symbol was carried, the crowd chanting a hymn in its praise. The festival was imitated in Rome, but was suppressed by the Senate on account of the immorality it produced.

PHARMACOPŒIA, *far-ma-ko-pe'-a* (Gr.)

—A book of directions for compounding medicines. This term is usually restricted to an authoritative work, issued by a medical college or other governing body, to secure uniformity in the preparations used by its members; the terms *dispensatory* and *formulary* being left for medical receipt-books which have not an authoritative character. The necessity for regulating the strength and purity of medicines has led to the adoption of pharmacopœias by most civilized countries. In Great Britain there were formerly three national standards—the Pharmacopœia of the London, Edinburgh, and Dublin Colleges; but a Committee of the Medical Council, after having been for some time engaged in the work, consolidated the three different manuals into one British Pharmacopœia, which was published in 1864. A Revised Version was published in 1867, and in 1874 additions were issued in a separate form. A new Revised Version is now in course of preparation. In the United States of America, the pharmacopœias published in Great Britain and on the European continent were generally used until 1820, when the first edition of the Pharmacopœia of the United States saw the light. The last Revised Version has just been issued (1883). In France, the Paris "Codex" is the chief work of authority. In Germany there were as many Pharmacopœias as there were States in the confederation; but in 1867 a National Pharmacopœia was published, another edition in 1872, and the third in 1882.

PHEON, *fe'-on*.—In Heraldry, the barbed head of a dart, engraved on the inner side, and with the point downwards.

PHIGALIAN MARBLES, *fi-gai'-le-an*.—The name given to portions of a sculptured frieze, taken in 1814 from the temple of Apollo Epicurus, at Phigalia, and now in the British Museum. The sculpture represents the contests between Greeks and Amazons and the Centaurs and Lapithæ, and are supposed to be the work of Phidias and his pupils. The temple is one of the finest architectural remains in Greece. The bas-reliefs were purchased by the Prince Regent, and presented by him to the Museum.

PHILHARMONIC SOCIETY, *fil-har-mon'-ik* (Gr., *philos*, loving; *harmonia*, concord of sound).—A musical society established in London, in 1813, for the performance and encouragement of high-class music.

PHILIPPICS, *fil-lip'-iks* (Gr., *Philippikoi logoi*).—A name given to the orations of the Grecian orator Demosthenes (born about 380 B.C.) against Philip of Macedon, when the latter was attacking the liberties of Greece. The term is also applied to the orations of the great Roman orator Cicero, which he delivered against Marc Antony, this title having been given to them by the orator himself in his epistles to Brutus; and having been found so just by posterity, that it has been continued to the present time. From these famous orations the term "philippic" has come to be applied to any invective declamation.

PHILOLOGY, *fil-ol'-o-je*.—A term derived from the Greek *philologia*. Once it carried a far different as well as a far wider signification than it does at the present time. With the Greeks, it comprehended, in a vague sense it is true, all literature and some science; and thus we find history, poetry, oratory, criticism, biography, grammar, logic, rhetoric, all included within the

term. Suetonius tells us that Eratosthenes, who lived in the second century before the Christian era, was the first who was denominated *philologus*. The Romans accepted the term, together with its ancient and broad signification, from the Greeks; and Cicero, an ardent lover of Greek literature, himself divided his writings into two classes; his orations constituting one class, and all his other works the other, which he called *philological*. After the revival of letters in Europe, the word *philologus* came to bear a different sense from that which it had in ancient Greece and Rome. With the Greeks, a *philologus* was one who was learned in the literature, grammar, and criticism of his mother tongue; with the Romans, the signification was the same. When Europe, however, began to awake from the deep dream of ignorance that had fallen upon her, and at the revival of letters began to turn her eyes to Greece and Rome, those quarters whence only learning could come, a *philologus* was one who, possessing no source of learning in his own mother tongue, was compelled to know two foreign languages in order to be distinguished above his fellows as a scholar. A *philologist*, or *philologer*, as we understand at the present time, designates him who studies language with the view to trace their analogies and relationship, whilst the allied *philology* is the name for the science. If it be admitted that each living speech has its history; that it has a fellowship and affinity with another; that it is capable of being grouped and classed, just as animals are grouped and classed by the zoologist; that it is an aid towards the solution of important questions in ethnology and history; if all these weighty considerations are allowed to appertain to language, then *philology* must be allowed to have as wide a scope and as great a human interest as any of the other sciences. Like the other sciences, the origin of *philology* arises from a few facts obtained by empirical observation; and it was not until a large mass of facts obtained in a similar manner was collected, that the process of digesting and bringing the whole into shape commenced. Leibnitz demanded that the principle of sound, inductive reasoning should be applied to the subject. He exhorted princes, ambassadors, travellers, and missionaries to aid him in collecting a great body of facts. Leibnitz did not make a vain appeal; and at the commencement of the present century, the results of the researches he had inaugurated were embodied in two great works—the "Catalogue of Languages," by Hervas, and the "Mithridates" of Adelung. But, perhaps, the greatest service rendered to *philology* by the plan suggested by Leibnitz was to animate the mind of Catherine the Great, empress of Russia, with the notion of compiling a universal dictionary. The great Cesarina of the North found many able assistants; and in 1787 appeared the first volume of the "Imperial Dictionary." In it were contained 285 words translated into 51 European and 149 Asiatic languages. But after all, these different works were only collections of languages and dialects, without the principle of scientific classification. Something was wanted to show that these dialects were related to each other—had an affinity each to each—were capable of being arranged into groups and families. The discovery of Sanscrit, according to Max Müller, like an electric spark, caused the floating elements of speech to crystallize into regular forms. (See *SANSKRIT*.) In 1808 Frederick Schlegel's work on the "Language

and Wisdom of the Indians" appeared. Schlegel, together with Lassen, Rosen, Burnouf, and Bopp, had come to England, where, with the assistance of Wilkins, Colebrooke, Wilson, and other eminent Indian scholars, they had sunk shafts into the mine of Sanscrit learning. In 1833, Francis Bopp gave to the world the first volume of his great work, "Comparative Grammar of Sanscrit, Zend, Greek, Latin, Lithuanian, Slavonic, Gothic, and German." In 1852 this work, which is accounted the solid foundation of comparative philology, was completed. Among the other founders of the science may be named Wilhelm von Humboldt, Grimm, Rask, Dr. Prichard, Max Müller. During the last ten years, Germany has had a journal specially devoted to comparative philology, whilst London has a philological society of its own, which publishes a yearly volume of its transactions. The student of language, who may be desirous of following out to the fullest extent the various theories and arguments of the great philologists, cannot be better employed than consulting Professor Max Müller's lectures on the "Common Origin of Language."

PHILOSOPHER'S STONE. (See ALCHEMY.)

PHILTER, *fil'-ter* (Gr., *philtron*, a love-charm).—The Greeks and Romans used charms, generally in the form of potions, composed of herbs (frequently of a deleterious character) and other vegetable and animal substances, prepared with magical rites for the purpose of inducing the passion of love. Thessaly had a great repute for potent herbs having this property. The draughts not unfrequently produced madness and death, so poisonous were the ingredients of which they were composed. In the worst days of the Roman Empire, these potions were extensively made, and openly sold. In more modern times, the sale of "elixirs of love," or draughts which would secure the love of the person who drank it for the person who administered it, has been a lucrative business for the travelling mountebank; but such potions, sold at a high price, were generally innocuous.

PHLEGETHON, *flé'-ge-thon* ("the flaming").—In Greek mythology, a river of fire, discharging into the Lake of Acheron, in the infernal regions.

PHENIX, *fé'-niks*.—The name of a fabulous bird of antiquity, which is described as being, in outline and bulk, very like an eagle, and as having part of its plumage gold-coloured and part crimson. It was said to live five hundred years in the wilderness, and then return to Egypt, where, having built itself a nest, it was consumed, and from the ashes of the old bird sprang its successor. The Egyptians had a tradition that the wonderful bird had appeared four times in their country. Some old ecclesiastical writers considered the phoenix to be a type of Christ. The Jewish rabbins supposed that the passage in the Psalms (ciii. 5), rendered in our translation "Thy youth is renewed like the eagle's," refers to the phoenix. The phoenix has been a fertile subject for the imagination of the poets of all ages; and even by some of the early Christian writers this myth was advanced as evidence of the resurrection.

PHONETIC WRITING, *fo-net'-ik*.—The adoption of symbols for the elementary sounds of

language. (See ALPHABET, HIEROGLYPHICS, and ORTHOGRAPHY.) In 1847, Mr. Isaac Pitman and Mr. A. J. Ellis invented a phonetic alphabet, consisting of 34 letters, including 11 new characters, and their system obtaining many admirers, publications were issued printed in types specially cast. Its appearance is at first rather strange to eyes accustomed to the old alphabet, but the different sounds (sadly confused in our ordinary orthography) are so clearly indicated, that foreigners, naturally perplexed by the inconsistencies of our common system of spelling, must be greatly assisted by the phonetic characters.

PHONOGRAPHY, *fo-nog'-ra-fe* (Gr., *phone*, a voice; *grapho*, I write).—A method of writing short-hand, invented by Isaac Pitman, of Bath, in 1837; since that time, however, it has been considerably modified. The system professes to be founded on the analysis of the sounds of the English language, from which circumstance it derives its name. All the consonants are represented by straight lines and curves. The vowels are represented by dots and short dashes, which are made heavy and light to represent long and short vowels. (See SHORT-HAND.)

PHOTO-SCULPTURE.—A method, invented by M. Willème, in 1867, and afterwards practised in London, of taking likenesses in the form of statuettes and medallions by the aid of photography. The process is very elaborate and involves considerable expense, and has not advanced in popular favour. The person whose statuette is to be taken stands in the centre of a large circular room, with a glass cupola, and becomes a subject for the action of 24 cameras placed at equal distances around the room. Each photograph so taken is reflected in turn by a magic lantern on to a screen, and by the use of a pantograph, the images are worked out on the modelling clay.

PHRASE, *fráise'*.—In Music, the simple motives, containing in themselves no satisfactory musical idea, which enter into the composition of a melody.

PHRASEOLOGY, *frai'-ze-ol'-o-gie* (Gr., *phrasis*, speech, and *logos*, discourse).—Properly, the science of language or expression; but it is commonly used to signify the peculiarities of style of a writer, class of persons, &c.

PHYLACTERY, *fe-lak'-te-re* (Gr., *phylakterion*, a protection, preservation).—A term applied by the Greeks to an amulet, or preservative against infection. The phylacteries of the Jews consisted of slips of parchment on which were written portions of the law, and which were enclosed in cases, and worn on the arms and between the eyes during prayer. Their use was to remind the worshippers that the law must be in the head and in the heart; and they were supposed to be preservatives against demons. Some of the Christian fathers apply this term to the sacraments.

PHYSICIAN, *phiz-zish'-an* (Gr., *phusikos*, from *phusis*, nature).—The term originally denoted a natural philosopher, one who investigated the laws and operations of nature; but it is now applied exclusively to those who practise the art of healing, called in Greek *iátrōi*, and in Latin *medici*. Among all rude nations, the healing art is practised by the priests, as was the case among the early Egyptians and Greeks. Among the latter, however, medicine soon rose to the rank

of a distinct science, and its practitioners were highly honoured and well remunerated. There are still extant several medals struck by the people of Smyrna in honour of different persons belonging to the medical profession; and it seems to have been not uncommon for states to maintain physicians, who were paid at the public cost. Julius Cæsar bestowed the rights of Roman citizenship on foreign physicians practising at Rome; and Augustus, on recovering from a dangerous illness, made his physician an *eques*. The Roman armies, during the empire, were attended by regular surgeons, and many of the stamps with which they sealed their preparations have been found in England and on the continent. Of the previous education necessary to qualify a physician to exercise his profession in early times nothing is known. It was probably under the Christian emperors that physicians were first required to undergo an examination by competent persons before they were permitted to practise. The *archiatri*, or chiefs of the physicians, were authorized to examine all those that were desirous of practising, and to license them if competent; and if any practised without being so licensed, they were heavily fined. The title of *archiater* is said to have been first borne by Andromachus the elder, the physician of Nero, and was probably at first a mere title of honour; but afterwards, the *archiatri* came to acquire a certain degree of superintendence over the medical profession. In the general barbarism which followed the fall of the Roman empire, medicine, as a science, was completely lost, and the rewards of those who practised it must have depended upon their own good fortune and the rank of their patients. Internal medicine came to be practised exclusively by the clergy; and as they were forbidden to shed blood, operative surgery fell into the hands of an inferior class—the barber-surgeons. During the Middle Ages, indeed, the general practice of surgery was reduced to the lowest ebb. Among the Arabs, however, medicine was practised to some extent, and its professors were held in high esteem. The degree of Bachelor of Physic was known at Oxford soon after the Conquest, and in the 14th century the degree of Doctor of Medicine was not uncommon.

PIANO, *pe-an'-o* (Ital., soft).—A musical term indicating that a passage is to be played gently, and with less than the average force. The mark on the score is *p.*, and *pp.*, and *ppp.*, meaning greater degrees of softness of tone.

PIANOFORTE, *pe-an-o-for'-te* (Ital., *piano*, soft; *forte*, loud).—A musical stringed instrument, so called from its possessing equal facilities for the production of soft and loud sounds. Its tones are elicited by means of small hammers, made to act upon tightly-stretched elastic strings, by striking corresponding keys in the finger-board. Its origin may be traced to a very early period. Instruments upon a somewhat similar principle were known before the 15th century. The first of which we have any account was the dulcimer, consisting of a small box strung with brass and steel wires, and played with little wooden rods or hammers. Out of this arose the *clavichord*, which was followed by the *virginal*, so named in compliment to Queen Elizabeth, who is said to have been a good performer on it. Next came the harpsichord, of similar form to the modern grand piano, being literally a horizontal harp played by keys, with

jacks and quills, and which merits some veneration when we remember that many of the greatest works of Handel, Haydn, Mozart, Scarlatti, &c., were developed upon it. Thus, the instrument gradually progressed; but it was not until 1716 that the pianoforte was invented. About this time, however, a Parisian manufacturer, named Marius, presented a harpsichord in which hammers had been substituted for the old plectrums or quills, to the Académie des Sciences at Paris. This was a very great step in the right direction, and so entirely altered the quality and tone as to make it an entirely new instrument—in fact, the embryo, so to speak, of the piano. This improvement was afterwards greatly advanced by a Florentine named Christofali; and his instrument was the first to receive the modern name. During the following half-century little notice seems to have been taken of the new instrument. About 1760, however, two manufactories were established; one in London by Zumpe, and the other by Silbermann, in Germany. Both were successful, but that of Zumpe pre-eminently so. Shortly after, M. Sebastian Erard commenced the manufacture of pianofortes in France, and it is to him that we are indebted for many of the most important improvements in the instrument. Every year important improvements were being made in the instrument. In 1809, Sebastian Erard invented the upward bearing of the strings, and in 1821 his nephew, Pierre Erard, produced his first repetition action. These were followed, in 1824, by a complete method of metal bracing for the grand piano; and in 1827 he brought out a new repetition action. The upright piano was invented by Hancock, who also produced several others—as the *organized* pianoforte, the portable grand, &c. The upright instrument was afterwards improved by Southwell, who gave it the name of cabinet pianoforte. The compass of the pianoforte at this period was very limited, being only five octaves, from F below the lowest note on the violoncello to F in alt.; it soon, however, was extended to C above, and then to F, still higher, making six octaves; thus the key-board has been gradually extended until, at the present day, many instruments have a compass of seven, while some possess as many as eight octaves. During the first part of the present century, two systems prevailed with regard to the manufacture of the grand piano. The older one, called the English system, followed by the London makers, and the newer one of the Germans, termed the Vienna system. The difference which existed between these two methods consisted chiefly in the action, that of the London makers giving a more powerful blow and producing a fuller tone; while that of the Germans, by its lightness of touch, gave far greater facilities of expression. At the present day, however, we have an action, the invention of Sebastian Erard, which combines the advantages of both systems. The grand pianoforte was first brought before the public as a concert instrument in 1782, by Clementi, who played on one of Broadwood's at the Pantheon, in Oxford Street, in that year. One of the greatest of modern improvements in the pianoforte was the introduction of pedals, by means of which the rich and lengthened tones, before possessed by the violin alone, may be produced. Many foreign instruments have several pedals; but those of English manufacture seldom or never have more than two: the one for *piano*, and the other for *forte* effects. Besides those we

have mentioned, many other kinds of pianofortes have been invented. The strings on which the upper notes are sounded are of thin wire; but the bass-strings are thick, and coated with a fine coil of copper wire, the thickness, strength, and tension of the strings diminishing from the lower to the upper notes. A grand pianoforte has three strings to each of the upper and middle notes, generally only two to the lower notes, and one to the lowest octave. In the square pianoforte, the strings, like those of the grand, are in a horizontal position, but obliquely to the key; in the upright pianoforte, the strings are in a vertical position. Music for the pianoforte is written in two staves, and on the treble and bass clefs. The pianoforte is the most popular of all instruments, scarcely a house with any pretensions to comfort or elegance being without one; and most of the eminent musicians of modern times have composed music for it, or been conspicuous for their skill as performers.

PIAZZA, *pe-ăd'-za* (Ital.).—An open square or market-place, surrounded by buildings; also a covered walk, or arcade, at the side of the open place. The piazza on the northern and eastern sides of Covent Garden market is a familiar instance of the latter.

PIBROCH, *pi'-brok*.—A martial strain, with irregular rhythm, played on the Highland bagpipe, and of a peculiarly inspiring character. It is supposed to present to the ear a vivid impression of the sounds of a march, conflict, flight, pursuit, and other incidents of a desperate encounter.

PICA, *pi'-ka* (Latin, painted).—A size of type used in printing the Romish *pica*, or service book, and the name was taken from the appearance of the red initials and rubrics mixed with black type.

PICCOLO, *pi-k'-o-lo* (Ital., small).—A flute of small size, having the same compass as the ordinary flute, but with all the notes an octave higher. A small stringed instrument is known as the piccolo pianoforte.

PICKET, *pi-k'-et*.—A term having various meanings in military language: as, a small guard of men who patrol the streets of a garrison town or the neighbourhood of a camp, looking out for soldiers who are out beyond the proper time; a stake driven into the ground, and used for the fixing of tent and other ropes, for marking out ground, and for tethering horses to; pointed stakes used in fortification for securing gabions, and for forming a kind of *chevaux de frisé* to obstruct a storming party. Formerly a particularly painful punishment so named was inflicted on soldiers. The man to be punished was held by the raised arm in such a position that his whole weight fell on one foot, which was supported on a picket with a blunt point.

PICT'S HOUSES. (See **EARTH HOUSES.**)

PIERCED, *peers'-d*.—In Heraldry, an indication that a charge is perforated so as to show the field beneath it.

PIETA, *pe-a-ta'* (Ital., from affection for relatives).—A term of art applied to representations of the Virgin Mary, embracing the dead body of the Saviour. Many masterpieces of painting and sculpture are included in this class.

PILASTER, *pil-as'-ter*.—A square pillar, sometimes standing free, but generally attached

to a wall. It was freely used in Greek and Roman architecture. In the latter style the pilaster had a capital like that of a column.

PILE, *pile*.—In Heraldry, one of the ordinaries representing the piles upon which bridges and other buildings are erected, in order to strengthen the foundation.

PILGRIM FATHERS.—The name given in American history to a party of English Puritans (74 men and 28 women), members of John Robinson's church at Leyden, who sailed in the *Mayflower*, and landed on the 25th of December, 1620, on Plymouth rock (now included in the state of Massachusetts), where they established the nucleus of a colony.

"PILGRIM'S PROGRESS."—The most widely-circulated book in the English language, except the Bible, and, perhaps (but it is doubtful if it be so), "*Robinson Crusoe*," is "*The Pilgrim's Progress* from this World, to That which is to Come," written in Bedford Jail by John Bunyan, who had been a soldier, and a travelling tinker, who was converted to religion, and who suffered a twelve years' imprisonment for preaching in a conventicle, as the Baptist Chapel where he ministered was called. In the words of Judge Wingate, who tried and sentenced him: "John Bunyan hath devilishly and perniciously abstained from coming to church to hear Divine service, and is a common upholder of several unlawful meetings and conventicles." The date of the publication of the first edition of the first part of the famous book is unknown; but it probably appeared directly after his release from prison, in 1672. The earliest copy in the British Museum is dated 1678, but it is a second edition with additions. The work was eagerly read, and by 1685 had reached a tenth edition. The second part was published in 1684. Its popularity was attended by the appearance of imitations and pretended continuations. In the preface to the second part, Bunyan refers to these spurious performances. "Some chose of late to counterfeit my Pilgrim, to their own my title set." The work is an allegory in the form of a romance, and the characters are depicted with such vigour, vivacity, and power of satire, that thousands of readers enjoy it as a narrative with very little regard to the spiritual meaning. No doubt by many the likeness between some of the characters introduced and well-known personages was recognized. The story, in its spiritual aspect, describes the conversion and regeneration of the human soul, the impediments of the burden of personal sin and the wickedness of the world, the struggles with temptation and against cowardice and despair, and the final relief by depositing the weight of sin at the foot of the cross, the assurance of salvation, and the entrance into glory. As a literary production—the work of an uneducated man, with the scantiest opportunities of acquiring knowledge or the graces of style—"The Pilgrim's Progress" is a unique production! Macaulay says, in his marvellously rhetorical essay on Bunyan—in which, however, he appears to misunderstand the keynote of the book, supposing that the author only depicted with amazing power the terrors and joys which agitate an individual mind of great sensitiveness, and not the work of conversion generally, the passing from spiritual death to life, experienced by millions of Christians in all ages—"Bunyan

is as decidedly the first of allegorists as Demosthenes is the first of orators or Shakspeare the first of dramatists. Other allegorists have shown great ingenuity, but no other allegorist has ever been able so to touch the heart, and to make abstractions objects of terror, of pity, and of love." Coleridge said of the "Pilgrim's Progress,"—"It is, in my opinion, the best *Summa Theologica Evangelice* ever produced by a writer not miraculously inspired. It is composed in the lowest style of English, without slang or false grammar. If you were to polish it, you would at once destroy the reality of the vision. This wonderful book is one of the few books which may be read repeatedly at different times, and each time with a new and different pleasure. I read it once as a theologian, and let me assure you there is great theological acumen in the work, once with devotional feelings, and once as a poet." On the subject of Bunyan's literary style, Macaulay may again be quoted: "The vocabulary is the vocabulary of the common people. There is not an expression, if we except a few technical terms of theology, which would puzzle the rudest peasant. We have observed several pages which do not contain a single word of more than two syllables; yet no writer has said more exactly what he meant to say. For magnificence, for pathos, for vehement exhortation, for subtle disquisition, for every purpose of the poet, the orator and the divine, this homely dialect, the dialect of plain working men, was perfectly sufficient. There is no book in our literature on which we could so readily stake the fame of the old unpolluted English language." The various editions which have appeared and are still appearing of this incomparable book are innumerable.

PILLAR, *pil'lar* (Ital., *pilastra*).—In Architecture, a detached support, differing from a column in having a section of any shape, that of a column being always round. Saxon and Norman pillars are generally thick and cylindrical, and built up of small stones; but in some instances are square, or octagonal. In Romanesque Norman work, the pillar is sometimes square, with two or more semicircular or half columns attached. In the Decorated style, the pillar is of lozenge shape, with mouldings and detached shafts running up into the arch.

PILLORY, *pil'lo-re* (Fr., *pillorie*).—A mode of public punishment which has been in use in most countries of Europe. The machine on which the offender was pilloried was of different kinds. The most common form in this country was a wooden frame or screen, raised several feet from the ground, behind which the culprit stood supported on a platform, his head and hands being thrust through holes in the screen, so as to be exposed in front. Thus, usually in the market-place, the offenders were exposed to the outrages of the mob, and were often in no small danger from the missiles by which they were assailed. Many persons died in the pillory by being struck with stones by the mob, and pelted with rotten eggs and putrid offal. It was abolished in this country as a punishment, except for perjury, in 1815, and totally abolished in 1837. The last person who suffered at the Old Bailey was Peter James Bossy, for perjury, June 24, 1830. The pillory was abolished in France in 1832.

PINNACLE, *pin'-na-kl* (Ital., *pinacolo*).—

In Gothic architecture, an ornamental termination to a square or octagonal shaft, originally forming the cap or crown of a buttress or small turret, but afterwards used on parapets at the corners of towers and in other situations. The pinnacles of the Decorated period are very rich, generally ornamented with crockets and finials, and sometimes with ball-flowers. In the Perpendicular style, pinnacles are often set angleways, particularly on parapets, and the shafts are panelled. In late examples of Gothic the pinnacle is greatly developed and ornamented with niches and statues.

PIONEER, *pi-o-neer'* (Old French, *peonier*, foot soldier).—A soldier employed as an artisan in making roads, trenches, bridges, and other works necessary to the advance of an army. In a regiment of the British army, a pioneer is selected from each company, and the men so chosen carry a saw-backed sword, an axe, other necessary tools and gun-spikes, and march at the head of the regiment.

In Literature, the term is applied to inventors and geographical explorers and settlers, who prepare the way for others to follow.

PIQUET, *pe-ke'* (Fr.).—A game of cards of French origin, and named from the French word *pique*, equivalent to the English "point." It is played by two persons with thirty-two cards: namely, ace, king, queen, knave, ten, nine, eight, and seven, of each suit; and these cards rank according to the succession in which they are here placed—the ace being higher than the king, the king than the queen, and so on. In reckoning what is called the point, the ace counts eleven; the king, queen, knave, ten each; and the other cards according to the number of their respective pips. In cutting for the deal, he that cuts the lowest piquet-card deals. The cards are dealt two by two, and in no other numbers. In this manner each player is to have twelve cards dealt him, and there will then remain eight cards, called the stock, which are to be placed on the board directly before the two players. From this, the first player has the right to draw five cards in their natural order, and must then discard the same number from his own hand. It is imperative to discard at least one card, but not the whole five. If he discard less than five, he has the privilege of looking at the cards left. His own discard is optional with the dealer, and if chosen, follows after every other hand. Tricks are taken in the usual manner by the superior cards of the same suit. The various denominations of the score are as follows:—1. *Carte-blanche*, is a hand of twelve plain cards. This hand enables the holder to count ten, and is counted before any other. 2. *Point*, which is reckoned by the player who has the greater number of cards in any suit, or, if both have an equal number, by the one who has the greater number of pips. Whoever has point counts one for each card he holds. 3. *Sequence*, which is several cards in the same suit following consecutively, as ace, king, queen, or knave; ten, nine, eight, &c. 4. The *Quatorze*, which occurs when a player has four cards of equal value in the four different suits—that is to say, four aces, kings, queens, knaves, or tens, or lower cards counting. Whichever player holds the highest quatorze counts fourteen; those which are highest taking precedence, and preventing any inferior quatorze from being of value. 5. The *Cards*. Two cards, one

from each player, make a trick. If each player has six tricks, the cards are divided; but if either wins seven or more tricks, he has "the cards"—that is, he counts ten beyond the number he has already scored. 6. The *Capot*. Whichever player wins all the tricks, wins what is called a capot, and instead of ten, adds forty to his score. The player who first scores one hundred wins the game.

Piquet, in Military Language. (See *PICKET*.)

PITAKA, *pit'-a-ka* (a basket).—A division of the sacred literature of the Buddhists. The name was given because the palm leaves on which the divisions of the books were written were kept in separate baskets.

PITCH.—A term applied in Music when speaking of the acuteness or gravity of any particular sound or instrument. For instance, if we wish to express that any sound is less acute, or lower, than another, we should say it is of a lower pitch, and *vice versa*. The pitch is adjusted by means of a tuning-fork, sounding the note C; but there have been great variations in the number of vibrations, the pitch having risen considerably, to the injury of the voices of singers. A committee of the Society of Arts, in 1860, recommended a uniform pitch, equivalent to 528 vibrations in a second.

PIU, *pe'-u* (Ital., more).—A musical term intensifying the meaning of a word to which it is prefixed.

PIVOT, *piw'-ot* (Fr.).—The extremity of the axle round which a body revolves. In Military language, the *pivot* is that officer or soldier upon whom the different wheelings are made in the course of the various evolutions of drill.

PIZZICATO, *pitz'-zi-ka'-to* (Italian, twitched).—In Music, a term indicating that the strings of a violin or violoncello should be twitched, harp fashion, instead of being played with the bow. The effect is in some cases very successful in accompaniments.

PLAGAL, *pla'-gal*.—A musical term signifying collateral, and applied when Gregory the Great revised the Plain-song of the Church to scales added to the scales of Ambrose. Modern musicians describe as plagal melodies those which have the principal notes contained between the fifth of the key and its octave or twelfth.

PLAGIARISM, *plai'-je-a-rizm* (Lat., *plagium*).—Appropriating (a more tender word than the old-fashioned word stealing) the works or thoughts of another, and publishing them as one's own. Among the Romans, *plagium* was the crime of stealing the slave of another, or kidnapping a free person in order to make him a slave. In this book-making age it is an offence frequently committed by literary hacks, who sometimes meet with deserved exposure.

PLAIN SONG (Ital., *canto fermo*).—A name given to the ecclesiastical chant of the Church of Rome. It is a simple melody, considered to have been invented by St. Ambrose. (See *AMBROSIAN CHANT*.)

PLAN, *plan* (Lat., *planus*, flat).—A representation of a plane section of any building, country, &c. The term is usually applied to the horizontal section, the word *section* or *elevation* being applied to the vertical plans. A plan is

used for a draught of a building, such as it appears, or is intended to appear, on the ground, showing the extent, division, and distribution of its area into apartments, passages, &c.

PLANISPHERE, *plan'-e-sfere* (Lat., *planus*, plane, and sphere).—A projection of the sphere and its various circles, on a plane surface, as, upon paper, maps of the earth or of the heavens. Maps showing the meridian or circles of the sphere may, in this respect, be called planispheres. The term is not much used now, and at present, in astronomy more especially, designates any contrivance in which plane surfaces, moving on one another, fulfil any of the uses of a celestial globe.

PLATOON, *pla-toon'*.—Formerly, in military language, a body of soldiers who fired together, but the term in that sense is now obsolete. Platoon exercise is the drill in handling, loading, and firing the rifle.

PLAUTUS, COMEDIES OF, *plau'-tus*.—Comedies illustrating the social life of Rome, written by T. Marcius Plautus, who lived between 254 and 184 B.C. He is reputed, but not without some difference of opinion among critics, to have been the author of at least 130 dramatic productions; but only 20 are now known. He adapted some of his plots from the Greek writers of comedy; but the wit, humour, satire, and cleverness of construction were all his own. His works have been translated into most of the modern languages, and much scholarship and critical acumen have been employed in correcting the old corrupted texts.

PLEIADES, POETICAL, *pli'-a-dees*.—A name given in the time of Ptolemy Philadelphus, King of Egypt (285-247 B.C.), who chose seven Greek poets at Alexandria to be treated with special distinction, and whom he styled his *Pleida*. A company of seven poets were mentioned by Charlemagne, and the same number was the limit of the members of companies of the troubadours and others until the 17th century.

PLEONASM, *ple'-on-sm* (Gr., *pleon*, more).—In Rhetoric, a term denoting a superabundance of words for the expression of an idea.

PLINTH, *plinth* (Gr., *plinthos*, a brick).—In Architecture, a large square table. It is employed as the foot or foundation of columns. The *plinth* of a statue is a base or stand, flat, round, or square, serving to support the statue. The *plinth* of a wall is a term applied to two or three rows of bricks advancing out from the walls; or, in general, from any flat high moulding, serving in a front wall to mark the floors, or to sustain the eaves of a wall and the larmier of a chimney.

PLONGEE, *plong'-zhai*.—In Fortification and Artillery, a slope towards the front. The term is applied to the top of a parapet sloping gently downwards, and to the course of a shell through the air from the point of greatest altitude to the point at which it strikes the earth.

PLUPERFECT, *plu'-per-fekt* (Lat., *plus*, more; *perfectus*, finished). (See *TENSE*.)

"**PLUTARCH'S LIVES**."—A famous series of biographies of forty-six Greek and Roman worthies, arranged in pairs, each pair

consisting of the life of a Greek and of a Roman, and followed by a comparison between the two men. The literary merit of these biographies is very great, and they have afforded materials for historians and poets of all ages. Shakespeare was greatly indebted to them in his plays founded on Roman history. The author was a Greek who lived in the first Christian century.

POCO, *po'-ko* (Ital., a little).—A musical term, applied to modify other directions for imparting expression to the music.

PODIUM, *po'-di-um*.—In Architecture, a pedestal continued laterally so as to form a low wall on which columns may be placed.

POET-LAUREATE. (See **LAUREATE**, **POET**.)

POETRY, *po'-e-tre* (Gr., *poiesis*, from *poico*, I create or produce).—There have been many attempts by men of genius, themselves poets, to say what poetry is, but with only modified success. The Greeks applied the word to designate the artistic production of the imagination. It would seem that the most exact definition we can arrive at is, that it is the expression of the perception of beauty, which in sensitive minds is an emotion as well as an intellectual faculty, and which demands a musical form of language, the melody and rhythm having an affinity with the nature and intensity of the emotion. The perception of fitness is instinctive. When the ideas are heroic or sublime, a stately diction, the music of which acts as an accompaniment in harmony with the thought, is required. When the poetic feeling is an outcome of joyousness in the perception of something beautiful or lovable, the language is brighter, livelier, triumphant. One mood produces the epic, the other the song. The words of some of the most perfect specimens of poetry almost suggest to a sensitive foreigner, unacquainted with their meaning, the emotion they are intended to express, so true has been the poet's instinct in selecting his medium of expression. He has indeed translated, if we may say so much, words into music, and music is the only universal language. The imitative faculty, which has invented so many single words, imparts to whole lines or passages of poetry a music reproducing the aspect to a sensitive mind of the subject of the verse; and even alliteration has frequently its office and value. (See **ALLITERATION**.) Some poetry stirs like the blast of a trumpet; some induces a feeling of melancholy; some seems like the music which announces a procession of stately figures; some expresses the joy felt by sensitive and happy natures in sunshine; some throb with the pulses of love; and some sparkle and flash with wit and the graceful intertwining play of thought and fitting rhythm. Poetry is of course an art, as music is an art; but artistic study and cultivation only perfect the gift of nature and cannot produce it. Metre and rhyme are easy enough to master, and many persons have conceived themselves to be geniuses of no common kind, because they could write lines which seem in accordance with the rules of prosody, but who have had no more claim to the title of poet than have the compilers of a catalogue. (See **GENIUS**.) Many great prose writers display a wonderful amount of poetic feeling, and their unmetrical utterances rise almost to the melody of the poetic form. The history of poetry may be divided into two great periods: one

before, and the other after, the birth of Christ. The religious poetry of the Hebrews is of very ancient date, and probably the Songs of Moses (Exod. xv.; Deut. xxxii., and xxxiii.), and the terrible song of triumph by Deborah (Judges v.), are among the most ancient poetical compositions known. The book of Job, which perhaps may compete with these in antiquity, is really an epic poem. Hebrew poetry possesses a solemn character, very different from that of any other nation of antiquity. At first it was of a descriptive nature; then of a warlike character; then, in the time of David, it assumed the form of sacred song (see **PSALMS**); and lastly, it was prophetic. The great Hindoo poems, the Vedas, and others are very old. In classic antiquity, the most ancient poetry is that of the Greeks. Among the Romans, language was not employed in poetry till a late period; and until the time when they became closely allied to the Greeks, only rude essays in poetry were made. The golden age of Roman poetry was during the time of Augustus and Tiberius; from which period it declined until the introduction of Christianity and the irruption of the barbarians. The first poetry of the Middle Ages may be considered to be the production of the Minnesingers among the Germanic nations. The poetic life of Italy may be said to begin with Dante Alighieri; and after him, in Italy, may be mentioned Petrarch, Ariosto, and Tasso; all of whom followed in the same vein. (See **ITALIAN LITERATURE**.) Next we may mention the poetry of Portugal, in which, according to Friedrich Schlegel, "the 'Lusiad' of Camoens far surpasses Ariosto in richness of colour and luxuriance of fancy." The Spanish poetry appears originally the sister of the Provençal, but mingled with an Oriental character. The Provençals, or Troubadours, sprung up about the 11th century; and in their poetry, devotion, valour, love, and the spirit of chivalry, are apparent. French poetry was at first light and sparkling, or epic and dramatic; and in modern times the storm which have shaken the political and social fabric have produced poetry of a stern, vengeful, and destructive kind. The origin of English and Scottish poetry is lost in the distant period of the bards. It was refined by the Norman-French poetry. The flourishing period of English poetry, however, is usually placed in the time of Queen Elizabeth, although Chaucer is usually looked upon as the father of modern English poetry. To Spenser and Shakespeare, and afterwards to John Milton, England is indebted for the finest poetry in the language previous to the great outburst of poetic achievement which has made this century, in the works of Scott, Coleridge, Byron, Shelley, Wordsworth, the Brownings (husband and wife), and Tennyson, so illustrious in literature. Scotch poets have always excelled in song, into which the unknown authors of many old ballads and more modern song writers, among them such kings and queens of song as Tannahill, Motherwell, Ladies Barnard and Nairne, James Hogg, and greatest of all, Burns, have infused sentiment, pathos, gaiety, and humour, unsurpassed in any literature. The northern or Scandinavian poetry, since the 13th century, presents chivalry tinged with the peculiar northern characteristics: at that period the German "Heldenbuch," or Book of Heroes, was introduced into Norway, and foreign and native traditions became blended together. (See **BALLAD**, **BLANK VERSE**, **DRAMA**, **LYRIC POETRY**, and **RHYTHM**.)

POINT.—In Heraldry, a triangular figure issuing from the dexter and sinister base of the shield. It is common in French and German heraldry. In order to facilitate the description of a coat of arms, the shield is supposed to be divided into nine points, known as dexter, sinister, chief, and by other distinctive names.

POINT-BLANK.—In Gunnery, the range of a gun when it is level and the line of fire is parallel to the horizon. The range is obviously much less than when the muzzle of the gun is elevated. In a point-blank discharge, the time occupied by the ball in describing the whole projectory or path is the same as it would require to fall from the muzzle to the ground.

POINTED ARCHITECTURE. (See GOTHIC ARCHITECTURE.)

POITRINAL, *poi-tre-nal*.—In ancient armour, a breast-plate for the horse.

POKER-PICTURE.—A picture produced by scorching the surface of wood. A clever artist is able to produce various gradations of tint, giving a soft and pleasing effect.

POLACCA, *po-lak'-ka*. (See POLONAISE.)

POLE-AXE.—A weapon formed by mounting an axe-head on a long pole; but in different kinds the shape of the head differs considerably. In the Navy, the boarding-hatchet, with a handle about 15 inches long, is also known by this name. A pole-axe is now used for slaughtering cattle and horses.

POLISH LANGUAGE AND LITERATURE, *pol'-ish*.—The Polish language is generally classed as forming, with the Bohemian, the western branch of the Slavic group. It is very flexible and euphonious, has no articles, but seven cases of declension, and the conjugations of the verb impart a capability of expressing nice distinctions of tense and gender which scarcely any other European language can approach. There are many consonantal sounds, but they are so modified in pronunciation, that the harshness which would otherwise be apparent is not observed. There are nasal sounds like those in the French. There was a considerable infusion of Latin words after the introduction of Christianity, and at a later period many German words were added; and the language increased in copiousness and strength until, in the 16th century, it superseded Latin as the official language of the state. The only remains of the early Polish literature previous to about 1600 are a few hymns, some songs, and proverbs. The most brilliant period includes the 16th and the early part of the 17th centuries, in the course of which appeared a series of poets, especially Rej and two brothers Jan and Piotr Kochanowski. Their early works were vigorous, poetical, witty, and satirical. The study of Latin poetry greatly influenced the most accomplished writers of this period, and some of the "Sielanki" or "Idylls" gracefully reproduce much of the charming simplicity of Theocritus. The spread of the doctrines of the Reformation produced translations of the Bible, and hymn-books, and numerous works of a religious character. In the course of the next hundred and thirty years, the Jesuits were paramount in educational establishments, and, under their influence, the native language was discouraged, and most of the works of importance were written in Latin. Then followed a period, extending almost to our own times,

when, stimulated partly by French taste in literature and the encouragement afforded to the cultivation of the national language, it was grammatically studied and developed. About the middle of the last century Kopczynski published his great grammar, the "Grammatyka Norodowa." French dramas were translated, an excellent translation of the history of Tacitus appeared, and the most brilliant Polish writer of that time, Ignacy Krasicki, achieved a reputation and influence among his countrymen by satirical writings almost equal to that which Voltaire enjoyed in France. Various poets of considerable ability, and an ingenious and indefatigable dramatist, Boguslavski, who produced about eighty plays, made their mark in the Polish literature of the last century. The political troubles in which Poland was involved by the aggressiveness and greediness of the neighbouring great powers were not calculated to encourage the appearance of literary productions, except those excited by strong patriotic feelings. In 1832, a fine library of 50,000 volumes, which had been collected by the Society of the Friends of Knowledge, founded in 1801 by two or three of the leading writers and supporters of the national literature, was carried away to St. Petersburg. The poetry of the early part of the present century, consisting chiefly of songs and idylls, have a martial ring, and many retain great popularity. The authors were men of high position and ability, statesmen and soldiers, gifted with no ordinary powers, and glowing with patriotic ardour; among them Ossolinski, Kolontaj, Potocki, Karpinski, Voronicki (who held the office of Chancellor), and Brodzinski. After the peace of 1815, when Poland had lost its political nationality, a number of enthusiastic and gifted young men formed at Wilna a coterie, headed by the famous Adam Mickiewicz, for the purpose of making a great effort to restore the national literature, divesting it of the trammels imposed on it by the influence of French writers. Nearly all these authors were earnest patriots and politicians, as well as poets, novelists, dramatists, and historians, and made themselves so obnoxious to the ruling powers by their outspokenness, that they were nearly all exiled, or compelled to seek safety by retiring from their native country. The modern literature of Poland includes the works of many native historians, whose works are of great value, though chiefly known through the medium of translations, to the student of modern history. Poetry and the drama are also cultivated; but no theological or philosophical writers of first-class rank have appeared. Among living and most recent historical writers who have within the last few years produced erudite works illustrating the history of their native land, should be mentioned Bobrzynski, Smolka, Szujski, Piekosinski, and Falkonski. The most popular novelists are Kraszewski, a very fertile author, and Milkonski, better known by his *nom de plume*, Jez. The modern drama, which includes more comedies than pieces of serious character, is best represented by Fredra (father and son), Blizinski, and Balucki. An excellent history of the Slavonic literatures has been written by Spasonicz; and another able and industrious critical writer, Chmielowski, has published a work of great value to the student of the subject, "Outlines of Polish Literature during the last Sixteen Years."

POLKA, *pol'-ka*.—A lively dance, either of

Polish or Hungarian origin, the music of which has the peculiarity of being accented on the third quaver of the bar. It became immensely popular in France and England about forty years ago, for a time eclipsing in favour even the time-honoured waltz.

POLO, *po'-lo*.—A ball game resembling hockey, except that the players are mounted on ponies. It has been long practised in India, from which it was introduced into this country in 1872. It is very popular among officers of the cavalry, as it requires great activity and good horsemanship.

POLYCHROME PRINTING, *pol'-e-krome* (Gr., *polus*, many; *chroma*, colour).—One of the methods of reproducing paintings and coloured drawings by mechanical means. It was first practised successfully in 1820, by Sir William Congreve, who employed metal plates. The imitation of drawings and paintings by means of lithography is usually termed chromolithography. In this case the fac-simile of the original is produced by means of an almost infinite variety of tints, obtained by numerous impressions. An outline of the subject is first of all obtained, after which a number of stones, each charged with a particular tint, are impressed, until the desired harmonious blending of colour is effected. The sequence of these impressions, the charging of the stones with primary or secondary colours, the application of the sharp dark touches, and the final glaze or finishing wash, together make up an operation requiring the nicest eye for artistic effect.

POLYCHROMY, *pol'-e-kro-me* (Gr., *polus*, many; *chroma*, colour).—A term applied to the art of painting works of sculpture and architecture with different colours. It was the universal custom among the earliest civilized nations not only to decorate their temples and palaces with colours, but also the statues with which they were adorned. Amongst the Egyptians, nearly every part of their buildings, together with the sculpture on their walls, was covered with gilding or brilliant colours. Traces of colour and gilding were distinctly apparent on the relics and carved slabs of Assyrian architecture when first discovered. The attention of artists and archaeologists has more particularly been directed towards the polychromy of the ancient Greeks. There is very little notice of the practice of colouring architecture in any of the ancient authors. In Vitruvius and Pausanias there are some remarks; but the systems which have been laid down by modern writers are only founded upon conjecture. In most of the architectural ruins of Greece, travellers have found the remains of colour upon ornamental work. Dodwell, Stuart, Chandler, Bröndsted, and others, discovered traces of colour upon the principal monuments of Athens; upon the Temple of Theseus, the Parthenon, the Propylæa, the Erechtheum, &c.; and by Mr. Newton upon the remains of the great Mausoleum at Halicarnassus. There is, however, considerable difference of opinion as to the extent to which the Greeks carried out polychromy. By the majority it is believed that in marble buildings the colouring was confined to the capitals of columns, the mouldings and other ornaments, the friezes, the metopes, and the tympana of the pediments. Some excellent authorities, however, hold that their buildings were entirely

covered with colour. At first, polychromy was confined to religious subjects, but in time it passed to all kinds of architecture and sculpture. The latter is frequently alluded to by almost all the ancient writers, and Pausanias describes many statues of this kind minutely. From the Greeks polychromy passed to the Romans. Pillars and outer walls of buildings, painted with various colours, were found in the remains of Pompeii and Herculaneum. Trajan's Pillar, at Rome, was celebrated for its brilliant and tasteful covering. At a later period, however, gold decorations, and facings of white and variegated stone, appear to have been used instead of colour. Among the Greeks, the most ancient images in clay and wood, and the first marble statues, were painted in bright colours; but these were afterwards modified to softer shades. Phidias and Praxiteles both painted their statues. In the Museo Borbonico, at Naples, is a statue of Apollo with yellow hair, the lower drapery being marked with red stripes and white flowers. In the Glyptothek, at Munich, there is also preserved a statue of Leucothea, in which the gilded hair is discernible, and the green and red colour of the long drapery. Besides this colouring, eyes of precious stones were often inserted in the ancient statues, as in the Roman bust of Antinous, in the Louvre at Paris. Mr. Gibson's tinted Venus, which was exhibited in the International Exhibition of 1862, was the principal attempt to introduce polychromy of late years.

POLYGLOT, *pol'-e-glot* (Gr., *polus*, many, and *glotta*, a tongue).—The definition of a book with versions of its text in several languages, and most commonly applied to the Bible. Origen is regarded as the first who attempted to carry out this idea, though his "Biblia Hexapla" is only in two languages. The Complutensian polyglot is the earliest of the polyglots properly so called (1522, 6 vols. fol.). The Antwerp Polyglot was printed by Christopher Plantin, at Antwerp (8 vols. fol., 1569-72), with the sanction of Philip II. of Spain. A third was published at Paris by Antoine Vitré (10 vols. fol., 1628-45). A work superior to any of these, however, is the London polyglot, edited by Brian Walton, in 6 vols. fol. (1654-57). Portions of the work are printed in seven different languages, which open at one view; and in the course of the work nine languages are used—viz., Hebrew, Chaldaic, Samaritan, Syriac, Arabic, Persian, Ethiopic, Greek, and Latin. The Polyglot, however, best known, and that which is most accessible to scholars, is Bagster's, published by the London bookseller of that name, in 1 vol. fol., London, 1831. It gives the Old Testament in eight different languages, and the New in nine—viz., Hebrew, Greek, English, Latin, German, Italian, French, Spanish, and Syriac, the New Testament being given in the last by way of appendix. The eight languages are exhibited at one view. Several editions of Polyglot Bibles have been published in Germany. A book containing the Lord's Prayer in nearly 500 languages has been issued, with the title "Mithridates," in reference to the famous king of Pontus, who was master of many languages.

POLYGON, *pol'-e-gon* (Gr., *polus*, many; *gonia*, an angle).—A plane figure of many angles, and consequently of many sides. The term is more particularly applied to a figure the perimeter of which consists of more than four sides. When the sides of a polygon are all equal, it is

said to be a regular polygon; otherwise it is irregular. Every regular polygon can be circumscribed by a circle, or have a circle inscribed in it.

POLYPHONIC, *pol-e-fo'-nik*.—In Music, a composition consisting of two or more parts, each of which has an independent melody, but supports the others. Of this style of composition, the fugue is the most perfect example.

POLYSTYLE, *pol'-e-stile*.—In Architecture, a term applied in building with many columns, but not the strict number of any of the classic arrangements.

POLYTECHNIC SCHOOL. (See *ECOLE POLYTECHNIQUE*.)

POMMETTÉE, or **POMEL CROSS**, *pom-met-tai'*.—In Heraldry, a cross, the extremities of which terminate in knobs, or "pomels."

POMPEY'S PILLAR.—A popular but unwarranted name for a famous monolith of red granite, with its pedestal nearly 99 feet high, about a third of a mile from the southern wall of Alexandria. By some archaeologists it is supposed to record the conquest of the city by Diocletian, 296 A.D.; others think that it was erected in honour of Vespasian or Adrian.

PORISM, *por'-ism*.—A term in use among Greek mathematicians, and defined by Playfair to be "a proposition affirming the possibility of finding such conditions as will render a certain problem indeterminate, or capable of innumerable solutions."

PORTAMENTO, *port-a-men'-to* (Italian, *portare*, to carry).—In Music, a term expressing the sustaining of the voice in singing, and passing from one note to another.

PORTICO, *por'-ti-ko* (Lat., *porticus*, arcade).—In Architecture, a covered space with a roof supported by columns. A portico is distinguished as prostyle or *in antis*, according as it projects from, or recedes within, the building; and is also described as tetrastyle, hexastyle, octostyle, and decastyle, &c., from the number of columns it has in front.

PORTLAND VASE.—A beautiful cinerary urn of transparent dark-blue glass, with groups of figures on it. It was discovered about the middle of the 16th century, in a marble sarcophagus in a cemetery near Rome, and was preserved for many years in the Barberini Palace at Rome, and is therefore frequently mentioned by archaeologists as the Barberini Vase. It afterwards came into the possession of the Duke of Portland, who, in 1810, allowed it to be placed in the British Museum, retaining his right of property. In 1845, a man named Lloyd, broke it into small pieces, which were afterwards collected and reunited with great skill. The vase is retained in the Museum, but not shown to the public. Wedgwood, the eminent artist in pottery, made some copies of the vase, which sold at a high price.

PORTUGUESE LANGUAGE AND LITERATURE.—The Portuguese language is a branch of the Romance family of languages, with many additions from the Arabic of the Moorish invaders of the Iberian peninsula, and from the Frankish and Celtic dialects. It differs from the Spanish as having an excess of nasal sounds, a softening of the consonants, and a deepening of the vowels, and also in grammatical construction. The earliest literary memorials date from the early part of the 13th century, one of the oldest

being the Book of Songs, by King Diniz, a collection of poems resembling in subjects and rhythm those of the Troubadour. As Portugal increased in maritime and commercial strength, the literature of the country, which had been weak and effeminate, strengthened also; and in the 15th and 16th centuries many works of value were produced. The oldest Portuguese tragedy, "Ines de Castro," appeared early in this period; and in 1572, the greatest of Portuguese poets, Camoens, published the "Lusiad," the pre-eminent epic of the country. He wrote also sonnets, songs, and dramas, exhibiting a versatile and graceful genius which places in a high position even in these times of great poetical achievement. After this, there was a period of decadence, the influence of the Spanish political ascendancy. The 17th and 18th centuries produced some good historians, especially Jacinto Freire de Andrade, whose biography of De Castro, Viceroy of India, is esteemed a model of elegant and vigorous Portuguese prose. Some poets of special ability appeared in the early part of the present century, among them F. do Nascimento and Manoel de Bóage, the latter being generally regarded as the most original and national of the modern poets of Portugal. At present there is considerable activity in every department of literature, and a high level of talent, but no writer perhaps, entitled to occupy the very highest rank.

POTENT, *po'-tent*.—In Heraldry, a line which resembles the head of a crutch, anciently called *potent* or *potan*. *Potent*, *Counter-potent*, *Potency*, *Counter-potency*, or *Potency in point*, is considered one of the furs used in heraldry. Cross-Potentis also known as a Jerusalem cross, is crutch-shaped at each extremity. It occurs in the insignia of the Christian Kingdom of Jerusalem.

Potentee, *po-ten-tai'*.—An heraldic line of division which takes the form of the outline of a succession of crutch-shaped figures.

POTENTIAL, *po-ten'-she-al* (Lat., *possum*, I am able).—That mood of the verb which expresses an action conceived as possible, expressed by *may* or *might* in English.

POWDER, *pow'-der* (Fr., *poudre*, dust).—Dry substance in minute particles; a term applied to an almost infinite variety of matters.

In Heraldry, powdered, or *semée*, means a shield shown with an indefinite number of small charges.

POYNTELL, *poynt'-tel*.—In Architecture, small pavements or tiles of lozenge shape.

PRAKRIT, *prak-rit'* (Sanskrit, *prakriti*, nature).—A collective name given to those languages or dialects which are derived from, or intimately connected with, the Sanscrit.

PRECEDENCE, *pre-se'-dens* (Fr., *précéder*; Lat., *precedere*, to go before).—A place of honour or rank to which a person is entitled either by right or by courtesy. The former is settled by authority, and when broken in upon, gives an action at law; the latter is due to age, estate, and the like, and is regulated by custom and civility. In England, precedence is no mere conventional arrangement, but is part and parcel of the law established by Acts of Parliament, decisions of courts of justice, or public instruments proceeding from the crown. Amongst the leading principles of our system of precedence are primogeniture and seniority, priority of birth and dates of patents and commissions, determin-

ing the precedence which individuals of the same rank take among each other. All ranks and honours are either hereditary, official, or personal. The order of baronets, the five ranks of the peerage, and the sovereignty of the realm, constitute the hereditary distinctions in British society. The discharge of public duties, civil, military, and ecclesiastical, imparts official dignity; while a seat in the House of Commons, or in the Privy Council, the honour of knighthood, patents of precedence of the bar, &c., confer distinctions which may fairly be comprehended under the third of these classes. It is a general rule of precedence, that persons of the same rank follow according to the order of the creation of that rank; and in the precedence of the English peerage it has been fixed that the younger sons of each preceding rank take place immediately after the eldest son of the next succeeding rank. Unmarried women take the same rank with their eldest brother; the wife of the eldest son of any degree, however, preceding the sisters of her husband and all other ladies in the same degree with them. Married women and widows take the same rank among each other as their husbands, except such rank be professional or official, as it is an invariable rule that no office gives rank to the wife or children of the holder of it. The daughter of a peer marrying a commoner retains her title as Lady or Honourable. The daughter of a Duke marrying a Baron degrades to the rank of Baroness only, while her sisters, married to commoners, retain their rank and take precedence of the Baroness. No written code of county or city order of precedence has been promulgated, but naturally in the county the Lord-Lieutenant stands first, and secondly the Sheriffs. In London and other Corporations, the Mayor stands first; at Oxford and Cambridge the High Sheriff takes precedence of the Vice-Chancellor.

Table of Precedency in the United Kingdom.

- The Sovereign.
- The Prince of Wales.
- The Queen's younger Sons.
- Grandsons of the Sovereign.
- The Archbishop of Canterbury.
- The Lord High Chancellor.
- The Archbishop of York.
- The Archbishop of Armagh (present one only).
- The Archbishop of Dublin (present one only).
- The Lord President of the Privy Council.
- The Lord Privy Seal.
- The Lord Great Chamberlain.
- The Earl Marshal.
- The Lord Steward of Her Majesty's Household.
- The Lord Chamberlain.
- Rank above all Peers of their own degree.
- Dukes, according to their Patents of Creation.
- 1. Of England; 2. Of Scotland; 3. Of Great Britain;
- 4. Of Ireland; 5. Those created since the Union.
- Marquises, according to their Patents, in the same order as Dukes.
- Dukes' eldest sons.
- Earls, according to their Patents, in the same order as Dukes.
- Marquises' eldest Sons.
- Dukes' younger Sons.
- Viscounts, according to their Patents, in the same order as Dukes.
- Earls' eldest Sons.
- Marquises' younger Sons.
- Bishops of London, Durham, and Winchester.
- All other English Bishops, according to their seniority of Consecration.
- Bishops of the Irish Church, created before 1869, according to their seniority of Consecration.
- Secretaries of State, if of the degree of a Baron.
- Barons, according to their Patents, in the same order as Dukes.

- Speaker of the House of Commons.
- Treasurer of H.M.'s Household.
- Comptroller of H.M.'s Household.
- Master of the Horse.
- Vice-Chamberlain of H.M.'s Household.
- Secretaries of State under the degree of Barons.
- Viscounts' eldest Sons.
- Earls' younger Sons.
- Barons' eldest Sons.
- Knights of the Garter.
- Privy Councillors.
- Chancellor of the Exchequer.
- Chancellor of the Duchy of Lancaster.
- Lord Chief Justice of the Queen's Bench.
- Master of the Rolls.
- Lord Chief Justice of the Common Pleas.
- Lord Chief Baron of the Exchequer.
- The Lords Justices of Appeal.
- Vice-Chancellors according to seniority.
- Judges and Barons according to seniority.
- Viscounts' younger Sons.
- Barons' younger Sons.
- Baronets of England, Scotland, Ireland, and United Kingdom, according to date of Patents, in the same order as Dukes.
- Knights of the Thistle.
- Knights of St. Patrick.
- Knights Grand Cross of the Bath.
- Knights Grand Commanders the Star of India.
- Knights Commanders of the Crown of India.
- Knights Grand Cross of St. Michael and St. George.
- Knights Commanders of the Bath.
- Knights Commanders of the Star of India.
- Knights Commanders of St. Michael and St. George.
- Knights Bachelors.
- Companions of the Bath.
- Companions of the Star of India.
- Companions of St. Michael and St. George.
- Companions of the Indian Empire.
- Eldest Sons of the younger Sons of Peers.
- Baronets' eldest Sons.
- Eldest Sons of Knights. 1. Garter; 2. Thistle; 3. St. Patrick; 4. The Bath; 5. Star of India; 6. St. Michael and St. George; 7. Knights Bachelors.
- Younger Sons of the younger Sons of Peers.
- Baronets' younger Sons.
- Younger Sons of Knights in the same order as eldest Sons.
- Gentlemen entitled to bear arms.

PREDICATE, PREDICABLE,

pred-i-kait, pred-i-ka-bl (Lat., *predicare*, to affirm).—In Logic, a predicate is that which is actually affirmed of one, as patience of Job. A predicable is that which may be affirmed of many. Logicians commonly recognize five predicables, or rather, classes of predicables—genus, species, differentia, proprium, accidens. Whatever term can be affirmed of several things must express either their whole essence, which is called their species, or a part of their essence, which, when the material part, is called the genus; when the formal and distinguishing part, the differentia. Whatever is necessarily joined to the essence (*i.e.*, universally to every individual of it) is called a property (*proprium*); or merely contingently (*i.e.*, to some individuals only of the species), is an accident (*accidens*).

PREFACE, *pref-uis* (Lat., *præ*, before; *fari*, to speak).—An introduction, or series of preliminary remarks, prefixed to a work or treatise, intended to inform the reader of the main design, or, in general, of whatever is necessary to the understanding of its plan and peculiarities. One or two modern writers, aiming apparently at purity of style, have substituted "Forewords" for the Latin equivalent.

Prefaces are short occasional forms in the Communion service of the Church of England, which are introduced by the priest on particular festivals, immediately before the anthem beginning, "Therefore, with Angels and Archangels," &c.

PRELUDE, *pre'-ludē*.—In Music, a short introduction to a piece of music, written in the same key, and generally of a smooth and flowing character.

PREPOSITION, *prep'-o-zish-un* (Lat., *præpositum*, placed before).—A word used to express a relation between different words, and generally placed before a noun. Grammarians generally class them with relational words, or those which express a relation between different things, which are expressed by notional. According to Horne Tooke, all prepositions were originally either verbs or nouns. Harris defines a preposition to be "a part of speech devoid itself of signification, but so formed as to unite two words that are significant, and that refuse to coalesce or unite of themselves." There are 18 prepositions in Greek, about 50 in Latin, and 40 in English.

PRE-RAPHAELITISM, *pre-raf-fa-lit-izm*.—An English school of painting, which has in recent years sprung into existence, has been thus named, in accordance with an erroneous idea that its earliest members were mainly anxious to imitate the mannerisms of the artists who painted before the time of Raphael. The fact was, that they imitated no pictures, and painted from nature only, but accepted the title of Pre-Raphaelites because it was their object to oppose that system in art which had grown up since the time of Raphael, one of the main characteristics of which was the pursuit of beauty at the expense of truth; whilst another was a servile obedience to traditional conventionalism. On their first appearance, the Pre-Raphaelites were hotly assailed in many quarters and on many grounds; but it is now generally acknowledged that the foremost Pre-Raphaelites stand in the first rank of modern painters, and have very beneficially influenced English art. The history of Pre-Raphaelism is given in a recent number of the *Magazine of Art*, by Mr. W. M. Rossetti, brother of Dante Rossetti previously mentioned: "It would be difficult to say who was most entitled to be regarded as the originator of the Pre-Raphaelite scheme. Hunt and Woolner were probably the most provoked and scornful at the shortcomings and invasions of the popular English art of their day; they imported into the movement its chief spice of bitterness and antagonism. Rossetti was from the first a poet in words, no less than a painter; the only one of the four who had at the time a considerable foundation of literary culture, joined with an original, ideal, or (as some might call it) romantic turn of mind, much in sympathy with chivalric mediævalism. Millais was essentially the pictorial eye and hand, with much less spontaneous tendency than Hunt and Woolner to a drastic reform in modes of work, and still less of the mental outlook and imaginative resilience of Rossetti. But, falling in with the ideas of his three colleagues, he 'went ahead' with all spirited ardour of purpose and brilliancy of method, and soon occupied, in the public regard, the first place as a painter. With these four artists were associated, as members of the Pre-Raphaelite Brotherhood, three other young men—two of them painters, and the third not an artist at all, but destined soon to be an art-critic—James Collinson, Frederick George Stephens, and Wm. Michael Rossetti. Thus the members of the brotherhood were seven in num-

ber, and never at any time were there more or other members than these seven."

PRESENTATION AT COURT.—When English subjects, or inhabitants of other countries entitled to the privilege by rank and honour, pay a visit to her Majesty on one of the stated public occasions, they are said to be *presented at court*. At a *levée*, the gentlemen alone appear; but at the *drawing-room*, both ladies and gentlemen are presented. At the *levées*, no persons are allowed to remain in the throne-room after having passed her Majesty, except the ministers, the great officers of the household, the foreign ministers, and the officers of the household upon duty. At the drawing-rooms, those who are allowed to remain are the ladies of the ministers, of the great officers of the household, and of the foreign ministers.

PRESS, LIBERTY OF THE, *press*.—The liberty of a citizen to print and circulate whatever he pleases; and it is not inconsistent with this liberty that a man should be made amenable to justice for the abuse of it. The press is a mighty engine for good or evil, and of its very nature requires to be kept under some restraint. In this country, the restrictions are of a very mild nature, the object mainly being to ascertain in every instance by whom the publications are issued, so as to make the printer or publisher amenable, whenever the case so requires, to the civil remedy of injured parties, or to the correction of criminal justice. The laws for punishing abuses are generally directed against attacks upon the government or its officers, upon the reputation of individuals, and upon good morals and religion. By 39 Geo. III. c. 79, every person possessing a printing-press or types must deliver notice thereof to the clerk of the peace of the county or other division where the same is intended to be used, according to a prescribed form, under a penalty of £20. And a similar notice is required to be given by every letter-founder and printing-press maker. Every person who shall sell types for printing, or printing-presses, shall keep an account of all persons to whom the same are sold, to be produced when required to any justice of the peace. A subsequent statute provides that every person who shall print any paper or book whatsoever, which shall be meant to be published or dispersed, and who shall not print upon the front of every such paper (if the same be printed upon one side only), or upon the first or last leaf of every paper or book which shall consist of more than one leaf, in legible characters, his name and usual place of abode or business, shall be liable to a penalty not exceeding £5 for every copy so printed. (See NEWSPAPERS). In every other country of Europe, the laws are much more stringent, and in several of them printed matter is subjected to a rigorous censorship before being published. Liberty of the press follows naturally from, and is intimately connected with, liberty of speech—the one being in every free government as necessary as the other. But as liberty of speech does not admit of one slandering his neighbour, or promoting sedition, neither does liberty of the press. We may, however, observe that the freer any government and people are, the less sensitive they are to charges affecting their character.

PRESSTISSIMO, *press-tis'-si-mo* (Italian,

very quick).—The quickest movement known in musical composition.

PRESTO, *press'-to* (Italian, quick).—A term used in Music to show that the piece should be played in a rapid, lively manner.

PRETENCE, ESCUTCHEON OF, OR ESCUTCHEON SURTOUT.—A term in Heraldry signifying a small shield placed over—*i.e.*, in the centre of—another shield. Thus from 1801 until Queen Victoria came to the throne, the Hanoverian insignia was placed as an escutcheon of pretence on the royal arms of England. But the Salic Law, which prevents females from reigning, having force in Hanover, this state was then severed from the English crown, and the insignia removed from the royal arms.

PRIDE.—In Heraldry, when a bird is represented as having its tail spread out, and its wings drooped, it is spoken of as being "in its pride."

PRIMA DONNA, *prin'-ma*.—The principal female singer in an opera.

PRIMARY COLOURS. (See **CHROMATICS**.)

PRINCIPAL, *prin'-si-pal*.—A personage in chief authority, as the head of a school, college, house of business, &c.

Principal.—In Music, a stop in an organ. It is tuned first; all other stops are tuned from it. Its pitch is an octave higher than the open diapason, and an octave lower than the fifteenth.

PRINCIPIA, *prin-sip'-i-a* (Lat., first principles).—The contracted title of Sir Isaac Newton's celebrated work, "Philosophiæ Naturalis Principia Mathematica," the publication of which formed the most remarkable period in the annals of science. It would appear that Newton first turned his attention to the subject on which this work treats in 1666. It is generally said that his observations were first led in this direction by noticing the fall of an apple from a tree. However that may be, we find that a letter from Hooke, written in 1679, caused him to resume his old thoughts, the subject of which was the curve in which a falling body descends to the earth, taking into account the motion of the earth. This new attempt was successful, but Newton did not write nor publish any treatise; he placed his papers to one side, and traced out the foundation of his system. Halley, at the beginning of 1684, had deduced from the third law of Kepler that the centripetal force on the planets was as the inverse square of the distance. Finding himself unable to proceed further, he made application to Hooke and Wren. The latter of these astronomers said that he had long given up the subject from inability to succeed; while Hooke professed to have solved the whole problem, but would communicate nothing. During the same year, Halley visited Newton at Cambridge, who told him that he had solved the problem, but was not able at that moment to lay his hands upon the papers. On Halley's departure, he again worked out the theorems, and transmitted them to him. On receiving this communication, Halley again went to Cambridge to gain more information, and to induce Newton to continue the inquiry. About the middle of February in the following year, the Royal Society received a communication, which was similar to that previously made to Halley, enlarged. It was entitled "Isaaci Newtoni Propositiones de Motu," and was entered upon the register of the Society. In this com-

munication were contained what were afterwards the main theorems of the early sections of the Principia, direct and inverse, relating to centripetal forces. On the 21st of April, 1686, Mr. Halley announced to the Royal Society that Mr. Newton "had an incomparable treatise on motion almost ready for the press." The book was printed in quarto, Mr. Halley undertaking the business of looking after it, and printing it at his own charge. The Royal Society would themselves have paid, but that their funds were so exhausted by bringing out a work of Francis Willughby, "De Historia Piscium," that their very officers had to be paid in copies of this work on fishes, instead of money. In the meanwhile, there arose a controversy with Hooke, who asserted that he had discovered the law of the inverse squares, and had communicated that and other discoveries to Newton. The third book of the Principia was presented to the Society, April 6th, 1687. The order of the Council of the Society to license the book was made on June 20th, 1686, and the imprimatur of Pepys was dated July 5th. Too much praise cannot be bestowed upon Halley for the part which he had in this affair. Having found out the ability of Newton to write such a work, he prevailed on him to do it, took charge of the publication, prevented him from materially mutilating it in disgust, paid the expenses of printing when he could ill afford it, and gave a clear and lucid explanation of it in the "Philosophical Transactions." It is also generally admitted that for a long time he was the only person in Europe who showed that he thoroughly appreciated the value of the work, and knew the position that in time it must gain in scientific history. The principal contents of the Principia of Newton are the dedication to the Royal Society; a short preface; some verses in honour of Newton written by Halley; definitions, axioms, a first book on unresisted motion; a second on resisted motion; and a third on the system of the universe. Much interest is attached to the second and third editions of the Principia, with reference to the alterations made in them by Newton.

PROFESSOR, *pro-fes'-sor*.—Strictly speaking, a professor is an officer in a university, who instructs students or reads lectures on particular branches of study; the word has, however, come to be used loosely to denote any person who teaches any special subject, whether at a university or not.

PROFILE, *prof'-eel*.—The outline of a section of the human face through the middle; the outline of a section of a cornice or capital, or set of mouldings, &c.

PROGRAMME, *pro'-gram* (Gr., *programma*, a public proclamation).—The syllabus or outline of any entertainment, public address, or ceremony. Although now used, however, in this general sense, it was formerly only a university term, applied to an outline of the orations to be delivered on a particular occasion.

PROGRESSION.—In Music, the succession of chords or parts of a musical composition when the key remains unchanged; when the key is altered it is called modulation.

PROJECTION, *pro-jek'-shun*.—In map-making, &c., and the representation of any object on a plain surface, as it appears to the eye, as star maps.

PROLEGOMENA, *pro-le-gom'-e-na* (Gr.).—In Literature, are preliminary observations prefixed to a book or treatise, serving as an introduction, and with the view of enabling the reader the better to understand the book, or to enter deeper into the science.

PROLOGUE, *pro'-log* (Gr., from *pro*, before, and *logos*, discourse).—A short poem or address, sometimes prefixed to plays, explaining the subject of the piece, and not unfrequently apologising for the shortcomings of the poet. Among the ancients, the player, who delivered this address was called the *prologus*.

PRONOUN, *pro'-noun* (Lat., *pro*, for, and *nomen*, a name).—In Grammar, is the name given to a class of words which are used as substitutes for the names of persons and things. Pronouns are of several kinds: personal, relative, demonstrative, &c. Personal pronouns indicate directly a person or thing—as I, thou, it; demonstrative pronouns relate to a present subject—as this, that; relative refer to some subject previously mentioned—as who, which, that; interrogative ask a question—as who? which? what? possessive indicate possession—as mine, thine, his.

PROPER.—In Heraldry, when a charge is represented as its natural colour, it is said to be "proper." There are some objects which cannot be borne "proper," as a rose, which may be either red or white.

PROPOSITION, *pro'-po-zish'-un* (Fr., from Lat. *propositio*).—A part of an argument in which some quality, either negative or positive, is attributed to a subject. It consists of two terms, the one that of which we affirm or deny, called the subject, the other the thing affirmed or denied, called the attribute, or predicate. These two are either joined or separated by the intervention of some copula or disjunctive. Thus, in the proposition, God is just, *God* is the subject *just* the attribute, and *is* the copulative. A syllogism consists of three propositions,—major, minor, and conclusion.

PROSCENIUM, *pros'-se-ne-um* (Gr. *pro*, before, and *skene*, a scene).—This term is at present applied to the frontispiece or part in a theatre where the drop-scene separates the stage from the audience, and beyond the orchestra; but in the ancient theatre it comprised the whole of the stage.

PROSE, *proze* (Fr.).—All literary composition belongs to one or other of the two great classes of prose or poetry. As to what constitutes the distinction between the two, writers are by no means agreed. Many contend that the difference lies in the form, and that metre is essential to poetry; others, that it is in the character, and that in poetry the imagination and feelings prevail, while prose is mainly addressed to the understanding. The distinguishing feature of poetry is not the metre but the character or style. Poetry deals with the emotions, prose with the reason and understanding.

PROSODY, *pros'-o-de* (Gr., *prosodia*, accent).—The word *prosody*, although originally merely signifying accent, now includes not only the doctrines of accent and quantity, but also the laws of metre and versification. If we take the first words of the sentence here written, count the syllables, and note those that are accented (the word *prosody* is derived from a Greek word

signifying accent), we find that there is no regularity in the recurrence of the accent; whilst if we take the same course with the following line,—

"The way was long, the wind was cold,"

we find that every second syllable is accented. Now, the extract where there was no regularity in the recurrence of the accent was prose, and the line in which the accent recurred at regular intervals is metrical; metre being a general term for the recurrence, within certain intervals, of syllables similarly affected. The syllables in the above-quoted line are similarly affected, being similarly accented. At the same time, accent is not the only quality of a syllable which, by its periodic return, can constitute metre, the classical grammarians determining the character of their metre not by accent, but by *quantity*. The metres wherein quantity plays its chief part are those of the Latin and Greek languages; and to define what quantity was in languages the proprietors of which have long since passed away, is somewhat difficult, from the fact that not only were there fifteen vowel sounds represented by six letters, but that each of these was again susceptible of one of the three accents—the acute, the grave, or the circumflex. The matter may be thus briefly explained. There is a difference between the length of *vowels* and the length of the *syllables*. The vowel in the syllable *see* is long; and long it remains, whether it stands as it is or be followed by a consonant, as in *seen*, or by a vowel, as in *see-ing*. The vowel in the word *sit* is short. Followed by a second consonant, it still retains its shortness; e.g., *sits*. Whatever the comparative length of the syllables *see* and *seen*, *sit* and *sits* may be, the length of their respective *vowels* is the same. Now, if we determine the character of the syllable by the character of the vowel, all syllables are short wherein there is a short vowel, and all are long wherein there is a long one. Measured by the quantity of the vowel, the word *sits* is short and the syllable *see* in *seeing* is longer. But in the eyes of a classical scholar, the *see* (in *seeing*) is short, and in the word *sits* the *i* is long; for he measures his quantity not by the length of the vowel, but by the length of the syllable taken altogether. To a Roman, the word *monument* consists of two short syllables and one long one; to an Englishman, it contains three short syllables. Another subject which comes within the consideration of prosody is *rhyme*—unknown or neglected by the ancients—which is the correspondence of sounds in the terminating words or syllables of two verses, one of which succeeds the other immediately, or at no great distance. A full and perfect rhyme consists in the recurrence of one or more final syllables equally and absolutely accented, wherein the vowels and the parts following the vowel shall be identical, whilst the parts preceding the vowel shall be articulately different. Rhymes may consist of a single syllable, as *told*, *bold*; of two syllables, as *water*, *daughter*; of three, as *cheerily*, *wearily*. The rhyme begins where the dissimilarity of parts, immediately before the main vowel, begins. Then follows the vowel, and, lastly, the parts after the vowel, the latter of which must be absolutely identical. Syllables may be similar in their sound, and yet fail in furnishing full, true, and perfect rhymes, as in the case of *eye* and *I*; whilst, on the other hand, there may be rhymes only to the eye—in the case of words

where the letters coincide, but the sounds differ; as in the case of *cease* and *ease* (eaze). If, however, the sounds coincide, the difference of the letters is unimportant; and thus, according to the laws of prosody, *rules* is a good rhyme to *fools*. *Rhythm* and *metre* are also subject to the rules of prosody, and each may be thus defined or explained. *Metre* is an arrangement of syllables and *feet* according to certain rules, and, in this abstract and general sense, comprehends indiscriminately either an entire verse, a part of a verse, or any number of verses. But a *metre*, in a specific sense, means a combination of two *feet*, and sometimes only one *foot* (a *foot* in poetry signifying a certain number of syllables constituting a portion of a line of poetry). *Rhythm*, however, respects the *time* only, and is a general name, expressing the proportion that subsists between the parts of time employed in the pronunciation of different feet, the least division of which is that employed in the pronunciation of a short syllable. Finally, we may observe that *blank* verse is poetry without rhyme; that *heroic* verse usually consists of ten syllables, or five feet, containing each an accented syllable, and one or two unaccented ones; and that *alliterative* verse is a kind of verse in which two successive lines usually commence with the same initial letter, or in which two words in the first line of each couplet, and one in the second, begin with the same letter; this kind of verse being an especial characteristic of Anglo-Saxon and Scandinavian poetry.

PROSPECT, *pros'-pekt*.—An American word signifying to search for a mine or a plantation, &c.

PROSTYLE, *pros'-tile*.—A temple which has a portico in front, and those which have one at each end are called *amphi-prostyle*.

PROVENÇAL POETRY. (See FRENCH LANGUAGE AND LITERATURE.)

PROVERB, *prov'-erb* (Lat., *proverbium*; from *pro*, and *verbum*, a word).—A short pithy saying embodying some well-known truth. According to Erasmus, "a proverb is a well-known saying, remarkable for some elegant novelty;" and Cervantes describes it as being "a short sentence drawn from long experience." Proverbs, the traditionary wit and wisdom of antiquity, are perhaps as old as any species of writing known to us. Aristotle regarded proverbs as remnants of an ancient philosophy saved from the ruin which had overtaken the rest of the system by their elegance and brevity. Aristotle, Theophrastus, Chrysippus, and others, according to Laertius, made collections of proverbs; and with the works of Plutarch a collection of 131 proverbs, with explanations, are given. Cicero made frequent use of proverbs from the Greek. Zenobius and Diogenianus, who lived in the 2nd century, made collections of proverbs—the former 552, the latter 775. Michael Apostolius of Byzantium, who lived about the middle of the 15th century, collected two thousand ancient proverbs, which were printed at Leyden 1653. Since that time numerous collections of proverbs of different countries have been published. Spain is celebrated above any other country for the number, originality, and elegance of its proverbs. The best collection is that of Repulles in 6 vols., containing in all about 30,000. John Ray, the naturalist, published in 1670 his collection of English proverbs, with a number belonging to

other countries; and a valuable collection was also published by Oswald Dykes in 1708. Ray's work has frequently been reprinted, and recently with additions by H. G. Bohn, in his Antiquarian Library, under the title of "A Handbook of Proverbs." Scotland ranks perhaps next to Spain in the number and elegance of her proverbs. Kelly, who flourished in the beginning of the 18th century, and made a collection of Scottish proverbs, boasts that while Ray had only been able to gather about 1,000, he had been able to collect 3,000. A recent collection of Scottish proverbs, by Alexander Hislop (1861), amounts to about 4,500.

PSEUDONYMOUS, *su-don'-e-mus* (Gr., *psudes*, false; and *onoma*, a name).—Applied to an author who publishes a work under a false or feigned name, and also to the work itself, in the same way as *anonymous* is applied to one who publishes a work without any name, or to the book so published. (See ANONYMOUS.)

PUBLIC SCHOOLS. (See SCHOOLS.)

PUGILISM, OR BOXING, *pu'-jil-izm*.—The art of defence and attack with the hands alone, without any other weapon. In the schools, and by amateurs, it is practiced with the gloves; in the prize-ring, with the naked fist. The fist being the simplest and most natural weapon, it may be taken for granted that pugilism was the earliest mode of settling differences. It formed one of the earliest of the athletic games of the Greeks; and we find the Greek poets describing their heroes and gods as excelling in the *pugne*. Boxing for men was introduced in the Olympic in the 23rd Olympiad, and for boys in the 37th Olympiad. With the exception of a girdle about the loins, the ancient pugilists fought nude. There was one feature, however, which bore no analogy with the pugilism of modern days: this consisted in the use of the *cestus*, a weapon formed of thongs or bands of raw ox-hide tied round the hands, and frequently as high as the elbows, of the boxers. Even in its simplest and most primitive form, it was a fearful weapon enough; but when "improvements" crept in, in the shape of knobs of lead or iron, and still later, when it assumed the form of a disc of bronze, it came to be a murderous piece of mechanism, fraught with despair and death to the less skillful fighter. As the head was exposed to great danger through the use of the *cestus*, *amphotides*, or armour for the head, by which the temporal bones, arteries, and ears, were protected, were invented; altogether, they were not unlike helmets. Properly speaking, the ancient boxing appears to have had three distinct eras. In the first, practiced during the heroic age, the head and hands were both naked; in the second, the hands were armed with bands of leather, while the head was left uncovered; in the third era, the head was clothed with the *amphotide*, whilst the hand battled with the most deadly form of the *cestus*. During the first and second periods—the *amphotides* being apparently never used in the great public games of the Greeks—the boxers stood before each other unflinchingly, he who possessed the greater skill standing on the defensive, and seeking to wear out his adversary; and the boxer who purchased victory without any wounds was held to be the better pugilist and the conqueror. Both ancient Greeks and Romans used the right arm in attacking, chiefly, the left being reserved as a protection for the head and

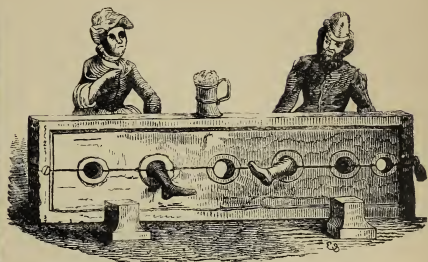
upper portions of the body. Owing to the employment of the bronze *cæstus* during the third era of ancient boxing, blows were dealt of such force as to dash out teeth, break bones, and often to cause death. It was the weapon rather than the skill of the combatants that did this; anyhow, the disfigurements the ancient boxers underwent were such that frequently they were damaged beyond recognition by their friends—a fact which excited some rather grim railery at the expense of the boxers on the part of the poets Lucian and Lucilius. But it is more than doubtful whether any ancient athlete could, with all his pugilistic paraphernalia, deliver so telling a blow as can a modern professor of the art with his naked hand—clean, quick, effective, from the shoulder. Like all the other athletic games of the Greeks, boxing was regulated by certain rules. The principal of these was that the pugilist was bound to fight until wounds, fatigue, or despair compelled him to desist. Although the natives of the British islands are said to be inherently prone to batter each other's person with the fist, as a mode of settling their private quarrels, still it was not until a century ago that pugilism came to be in a manner appropriated by the English. During the reigns of Elizabeth and James, and perhaps during the Restoration, we hear nothing of boxing, either as a national sport or as a national mode of defence. "Clubs," the rallying word of the "flatcaps," or apprentices, were the weapons of the English artisan, mechanic, or peasant; the sword, of those whose rank entitled them to wear that distinctive feature of dress. Pugilism was, however, firmly established in this country during the reign of the first princes of the house of Brunswick. Henceforth we find it the usual mode of deciding all disputes with the middle and lower classes, while noblemen and gentlemen practiced it as the best system of gymnastics, as the best means of attack and defence, and as the best mode of making the body pliant, flexible, and firm. Clearly enough, in the year 1740, the "manly art of self-defence" was encouraged by the highest of the nobility, and tolerated by the magistrates. The broad principle upon which pugilism was in those days based was to give and take. He who hit the hardest, and at the same time took the most punishment, was the usual victor. Fig was the greatest professor of the art in those days; he fitted up a booth, in which fencing, cudgelling, and boxing were shown, and afterwards opened an amphitheatre, in which he set up an academy for teaching boxing. Broughton succeeded Fig as the leading English pugilist, and besides becoming more popular, advanced far beyond his predecessor in the scientific use of his hands as weapons of attack and defence. His name is written in the pugilistic annals of his country as the "Father of the Science of Self-defence." In 1743, he opened an edifice in Hanway Street, Oxford Street, called Broughton's New Amphitheatre. Here the first pugilists of the day met and contended in the fistic duello. Besides the stage for the combatants, there were seats corresponding to the boxes, pit, and gallery of a theatre. Broughton held the championship during eighteen years, and was patronized by the Duke of Cumberland and others of the highest rank. Mendoza and Humphries were the great successors of Broughton, and in 1786 the Prince of Wales, the Duke of York, and other distinguished persons were present at a contest between the latter-named pugilist and another named Martin, at Newmarket. The combatants fought

on a stage, a guinea being charged for admission. The founder of the modern school of boxing, in which strength is subordinated to science, was Mr. John Jackson, who combined in himself all the requisites for a great athlete. He reckoned amongst his patrons and pupils some of the most spirited noblemen and gentlemen of his day, and gave lessons to Shaw, the life-guardsmen, who was killed at Waterloo, but not before he had dispatched or disabled ten Frenchmen. The art has been brought down to the present day, through a succession of pugilistic champions, although now it is no longer universally admired and patronized by the highest personages in the land. Society now sets its face against the active and practical part of boxing, whilst magistrates imprison the pugilists and their "seconds" for a breach of the public peace. It is brutal and debasing in the eyes of a majority of the modern community. Nevertheless, those who are the defenders of pugilism allege that the prize-ring is guided by certain rules, to transgress which is regarded as infamous; as to strike below the waist, to strike a man when he is down, to bite, kick, or inflict any injury except with the shut hand. It encourages individual, and consequently national, courage; it conduces to a general sense and sentiment of fair play and honour; it discourages and renders odious the use of the knife, stiletto, or of deadly weapons, setting aside those unmanly, barbarous, and savage practices which passion and motives of revenge might otherwise suggest. Lastly, that as it is not in the nature of man to submit tamely to injury, and as quarrels must arise between man and man which cannot be decided by law, the best way is to fight it out fairly, and then shake hands and become better friends than ever. Such are the views and arguments of those who advocate the use of the human hand as a weapon of defence or of attack. In one thing we may all safely agree with the pugilist—we may all learn from him with advantage the use of our hands, clothed after the manner termed "gloved." Boxing, as practiced under a scientific teacher, and with the gloves on, ranks second to no other as a gymnastic exercise. It invigorates the frame by expanding the chest; gives confidence and a quick eye to those who are of natural courage; and should one ever be attacked by a cowardly "bully," we may be enabled to teach him that it is not good or safe for him to maltreat one who has been taught to consider his hands as weapons of defence.

PUN, *pun* (Welsh, *pun*, equal).—A play upon words, the wit of which depends on a resemblance in sound between two words of different signification, or the same word used in different senses. Addison says (*Spectator*, No. 61), that "the seeds of punning are in the minds of all men, and though they may be subdued by reason, reflection, and good sense, they will be apt to shoot up in the greatest genius that is not broken and cultivated by the rules of art." Aristotle (rhetoric) describes two or three kinds of puns, which he calls paragrams, among the beauties of good writing, and produces instances of them out of some of the greatest authors in the Greek tongue. Cicero quotes abundance of sayings as pieces of wit, which are mere puns. The age, however, in which the pun chiefly flourished was the reign of James I., when the greatest authors in their most serious works made frequent use of them. The sinner was punned into repentance, and in the theatres tears were



PYRAMIDS OF GIZEH.



STOCKS.



SCULPTURE (BAS-RELIEF).



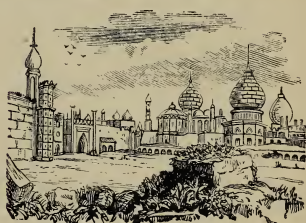
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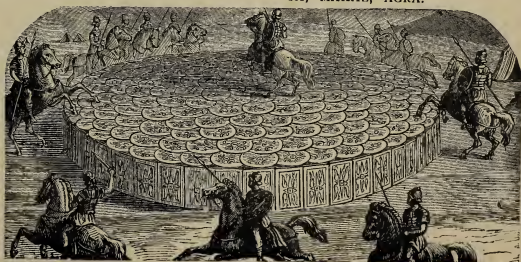
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VIRGINALS—16TH CENTURY.



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solicited and got at no higher price. "Puns," says Leigh Hunt, "are banished from good company at present, though kings once encouraged, and Cæsar and Bacon recorded them, and Cicero and Shakespeare seem to have thought them part of the common property of good spirits. They are tiresome when engrossing, and execrable if bad; at least, if not very and elaborately bad, and of malice prepense. But a pun may contain wit of the first water." The power of Hood in this way was very remarkable; as—

"They went and *told* the sexton,
And the sexton *told* the bell."

The court fool's pun upon Archbishop Laud was a good one: "Great praise to God, and little *laud* to the devil." "What is (m)ajest(y)," asked some one, "when deprived of its externals, but a *jest*?"

PUNCH, OR PUNCHINELLO, *punsh*.

—The name of the principal character in a well-known puppet-show, which is exhibited about the streets. The name is supposed to be a corruption of Policinella or Pulcinella, who is usually the leading character in Neapolitan puppet-shows. According to Galiani, the name is a corruption of Puccio d'Aniello, a vintager, characterized by a very large nose and grotesque appearance, and remarkable for his wit and drollery. He subsequently went on the stage, and became extremely popular, and was personated all over the country. On being introduced into Britain, the name became Punchinello, and for shortness Punch. The puppet-show of "Punch and Judy" embodies a domestic tragedy, treated in a broadly farcical manner. Punch himself is represented as a short obese personage, with an enormous hump on his back, a wide mouth, long chin, and hooked nose; and his wife Judy is in most respects his counterpart; while his dog Toby is an important character in the performance. Probably Punch is the only puppet-show which now exists in this country. (See PUPPETS.)

PUNCTUATION, *punk-tu-ai'-shun* (Lat., *punctus*, a point).—The art of pointing, or of dividing, written or printed composition into sentences and parts of a sentence, for the purpose of indicating by pauses the closer or more remote connection of the several parts. Punctuation is not, as some assert, a modern art, but was, in some measure at least, known and practiced by the ancients. There is reason to believe that some system of punctuation was known to the Greeks in the time of Aristotle; and Jerome, in his translation of the Sacred Scriptures, in the 4th century, made use of signs, which he called *commata* and *cola*. The invention of the modern system of punctuation has been attributed to Aristophanes, a grammarian of Alexandria; but it did not come into general use until after the invention of printing, the celebrated Venetian printers, Manutii, about the close of the 15th century, being the first to adopt it systematically. The principal points used in English composition are the comma (,), semicolon (;), colon (:), period (.), note of interrogation (?), note of exclamation or admiration (!), dash (—), and parenthesis (). Of these, the first four are marks of punctuation, strictly so called, regulating the length and character of the pauses to be made in reading; the others are chiefly rhetorical or syntactical aids, regulating the modulation of the voice. The comma marks the smallest division

of a sentence, separating nouns from nouns, verbs from verbs, and such other parts as are not necessarily joined together. The pause here is very short, and it may be remarked that sometimes the construction requires a comma where no pause is necessary in the reading, and *vice versa*; as, "He was a man patient, sober, honest, and industrious," where, in reading, the pause ought to be after "man," but where the construction requires that there be no comma. The semicolon is used when a longer pause is required than at a comma, the disjoined parts being less closely connected; while with the colon the pause is still greater, being used when a member of a sentence is complete in itself, but is followed by some additional remark or illustration of the subject. A period, or full stop, is placed at the end of a sentence, to close up the sense and construction, and to release the voice. It is also used after every abbreviated word, after headings, titles of books, &c., and generally after Roman numerals. The note of interrogation, as its name implies, is placed at the end of every question; and in Spanish it is also put in an inverted form at the beginning of a question. The note of exclamation or admiration is placed at the end of such words or clauses as express any strong passion or emotion of the mind. The dash is used where the sentence breaks off abruptly and the subject is changed, or where the sense is suspended and is continued after a short interruption. The parenthesis incloses a word or phrase introduced into the body of a sentence, with which it has no grammatical connection. Other marks in frequent use, and generally treated under the head of punctuation, though not strictly included in it, are the apostrophe ('), used to indicate the omission of a letter or letters, and also as a sign of the possessive case; the hyphen (-), placed between the constituent parts of a compound word, and at the end of a line where a word is divided; marks of quotation (" "), placed at the beginning and end of extracted passages of speeches, &c.; brackets or crotchets [], generally inclosing an explanatory phrase or passage inserted by one writer in a quotation from another; and the various marks of reference, as asterisk or star (*), dagger (†), double dagger (‡), section (§), parallel (||), and paragraph (¶), or figures or letters smaller than those of the text, pointing to notes correspondingly marked at the foot or margin of the page, or at the end of the book.

PUNIC FAITH, *pew'-nick*.—Falsity, faithlessness. The word comes from the Latin *punica fides*, which was applied by the Romans to the Carthaginians in allusion to the belief that the Carthaginians never intended to keep any treaty of peace, &c.

PUNIC WARS, *pew'-nick*.—The three great wars waged between the ancient Romans and Carthaginians. The name comes from the Latin word *punicus*, which was applied by the Romans to the Carthaginians because of their Phœnician descent.

PUPPETS, PUPPET-SHOWS, *pup'-pets* (Fr., *poupée*).—The term puppet signifies a small image in the human form, moved by wires or otherwise, in a mock drama. Amongst the French, the commonest kind of puppets are called *mari onettes*: these are moved by wires or threads upon a stage. In the ordinary performances of

Punch and Judy, however, the exhibitor puts his fingers in the figures. Among the ancient Greeks, puppet-shows were common, and from them they passed to the Romans. Mention is made of their exhibition by Xenophon, Aristotle, Gellius, Horace, and others. Since that period, at different times, puppet-shows have passed through various degrees of perfection. At Paris, there was a great puppet-opera in 1674, which was very popular for a time. Puppet-shows of considerable size are still performed in several of the large cities of Italy. There are also some very excellent puppet-shows in Germany; but they are mostly itinerary, and not so much patronized as in Italy. A few years ago, a marionette theatre was started in London, which had only a short-lived success. The only puppet-show which is popular in this country is the old-established performance of Punch and Judy. (See PUNCH.)

PURFLED, OR PURFLEWED, *pur-fuld*.—In Heraldry, means bordered with embroidery; relating to the adornment of the lining of the coat-of-arms, &c., doubtless from the verb to *purfle*, which means to adorn with embroidered border.

PURPLE COLOURS.—In painting, various shades of purple are produced by mixing pure red and pure blue. A very beautiful set of purple colours has also been recently produced by combining aniline, a product of coal-tar, with various other bodies. A beautiful purple dye called Orchil, or Archil (see ARCHIL), is also obtained from a lichen called *Orchella Weed*. This was originally discovered by a Florentine named Orchillini some centuries ago, and for many years kept a profound secret in Italy. Many improvements have recently been made in this dye.

Tyrian Purple, was the only purple colour known in ancient times, and perhaps because of the great costliness of its production, as well as of its great beauty, it was the most highly prized of all colours, and was the symbol of imperial power. It was obtained from certain shell-fish found in the Mediterranean named *purpura*, and also the *Murex trunculus*. Large establishments for catching these shell-fish, making the dye and dyeing the wool, formerly existed at Tarentum, now called Otranto, and enormous heaps of the shells have since been discovered here. As the quantity obtained from each mollusc was very small, immense numbers were required, and the cost of production was excessively high.

PURPURE, *pur'-pure* (Fr.).—In Heraldry, the term used to express the colour purple. It is said to be derived from a shell-fish called *purpura*, which gave materials for that colour. In engravings, it is expressed by diagonal lines drawn athwart from the sinister chief to the dexter base point.

PURSUIVANT OF ARMS, *pur-sue'-vant* (Fr., *poursuivant*).—In Heraldry, those officers who are the lowest in degree in the corporation of kings heralds and pursuivants of arms. As their name implies, they were the followers, marshals, or messengers, attendant upon the heralds. Formerly pursuivants were created by the nobility with great ceremony. The appointment of heralds and pursuivants by the nobility has long been discontinued, and there are now only four pursuivants belonging to the College of Arms; viz., *Rouge Croix*, the first in point of antiquity, is so called from the red cross of St. George, the patron saint of England. *Blue Mantle*, so called by Edward III. in

honour of the French coat, which he assumed, being blue. *Rouge Dragon*, so styled from the red dragon, one of the supporters of the royal arms of King Henry VII., who created this pursuivant. *Portcullis*, also instituted by Henry VII., and so named from a badge worn by him. The duties of pursuivants are similar to those of heralds; they assist at all public processions or ceremonies, such as royal marriages, funerals, &c., and have certain fees for attendance on such occasions. They also receive fees upon creations of peers, baronets, and knights.

PYRAMID.—Elevated structures of stone or brickwork, corresponding in form to the geometrical definition of the solid. The most remarkable structures of this kind are the colossal pyramids erected by the ancient Egyptians in the plain of Gizeh. In the opinion of Herodotus, the pyramidal form was looked upon by the Egyptian people as emblematical of human life. The beginning was signified by the broad base, and its termination by the point, or the end of our earthly existence. The exact derivation of the name is hid in considerable obscurity. Some derive the word from *puros* (wheat, grain), believing that it originally signified granaries such as those built by Joseph; others suppose that it comes from *pur* (fire), because the shape of the pyramid is like an ascending flame. It seems probable that the name is derived from an old Egyptian word. Pyramids are to be found among the Egyptians, Babylonians, Indians, and Mexicans. The Egyptian pyramids are sloped or symmetrical mounds placed over the graves or sepulchres of the monarchs and other great personages of the earliest Egyptian dynasties. After the twelve dynasties, the use of pyramids was discontinued. The pyramids are situated in the vast plain, or cemetery, lying between Dashour, and extending by Sakkara and Memphis, almost to 30° N. lat.: they are supposed to be sixty-nine in number altogether. As before stated, the most remarkable of these are the pyramids of Gizeh. The largest of them is said by Herodotus to have been built by Cheops. He also states that another pyramid close by covers the remains of Cyphrenes, his brother. According to that ancient writer, 100,000 men laboured, without interruption, for twenty years in building this enormous mound. About 1776, when Savary, the French traveller, visited Egypt, he inspected the pyramids, having obtained a guard from the governor of the district to defend him against the Arabs. On reaching the great pyramid, the travellers laid aside part of their clothes, and each taking in his hand a torch, began the descent. After descending a long passage, which at length became so narrow that they were obliged to creep on their hands and knees, they were obliged to ascend in a similar way. Upon traversing this second passage, they came upon a much more spacious apartment, lined with granite, at the end of which Savary saw an empty marble sarcophagus without a lid, while on the floor were scattered fragments of earthen vessels. After exploring another smaller chamber beneath, they emerged and ascended the pyramid on the exterior. They counted about 200 stone steps, varying from two to four feet in height, and from the summit had a most extensive view. The form of this large pyramid does not admit of a very exact measurement. According to Herodotus, it was 800 feet high, and the length of its base on each side was the same. Strabo makes

it 625; Diodorus, 600. Modern measurements make its extreme height only 450 feet. There is no doubt that the pyramid has decreased considerably in size by the continual spoliation of the sides in order to build the city of Cairo. According to Herodotus, who is confirmed by Diodorus and Pliny, the two large pyramids were originally covered with white marble, a statement which is confirmed by present appearances. Napoleon Bonaparte caused the great pyramid at Gizeh to be examined by 300 men, among whom was Denon, the celebrated French traveller. He narrates that the visitors, having landed, ascended a small elevation of rubbish and sand, which led to the entrance of the pyramid. According to Denon's calculation, this opening was about sixty feet from the ground, and concealed by a stone wall, which formed the third and innermost of the walls surrounding the pyramid. On either side of the entrance were placed large stones, horizontally, and above those others of enormous size, so placed as to make their fall or removal a matter of great difficulty. At this point the first entrance began, which led to the centre and ground floor of the building. With great difficulty, and only by cutting their way by steps, they succeeded in ascending to a landing-place in which was a deep well, forming the entrance to a horizontal passage leading to an apartment called the queen's chamber. From the above landing-place, an opening led in a perpendicular direction to the principal passage. This gallery ended in a second room, where the third and last partition was found. This apartment is built with greater care than the queen's chamber. Lastly, they came to the king's chamber, which contained a sarcophagus. Since that time this pyramid has been examined by various other travellers. The pyramid of Cyphrenes, the next in size to that of Cheops, was first opened and visited by Belzoni, in 1818. It closely resembled the larger structure in its passages, chambers, &c. In a third pyramid, built by Menkare, the third king of the fourth dynasty, the entrance was discovered by Colonel Howard Vyse, in 1837. The sarcophagus found in the sepulchral chamber was removed by Colonel Vyse, but lost at sea off Carthage. It is generally agreed that the pyramids of the Gizeh group are all of the age of the fourth dynasty—that is, older than 2000 B.C. All the Egyptian pyramids are constructed in a uniform manner. A rectangular sepulchral chamber was first hollowed in the rock, with a passage sufficiently large to admit the sarcophagus, communicating with the surface. A cubical course of masonry was erected over this, which served as a nucleus for the pyramid. If the king died during the year, the masonry was covered with a polished casing in the shape of a small pyramid; if the king survived a year, another course of masonry was added to the height of the nucleus, and the length of the base increased by courses of stones on each side. As long as the king lived, additions on the same plan were made every year. When the king died, this ceased; the edifice was cased by filling up the angles of the masonry with smaller stones, placing oblong blocks one upon the other, so as to make a series of steps from the

base to the top. A smooth surface was then given to each side of the pyramid, rendering it a perfect triangle, while, owing to each stone overlapping the other, no vertical joint was left. Among the principal groups of pyramids besides those of Gizeh, are others of less magnitude at Abouseer, Sakkara, and Dashour. In Mexico there are some singular monuments of the ancient inhabitants, of a pyramidal form; they are called *Teocallis*. (See MEXICAN ANTIQUITIES.) Near Benares, and other places in the East Indies, there are temples of a pyramidal form. They are said to be copies of the sacred mount *Mene*, and are called *Meru Springas*, or "Peaks of Meru." Pyramidal temples have also been found in Java.

PYRAMUS AND THISBE, THE STORY OF, *pir'-a-mus, thisbe*.—This is a tale of unfortunate love, and was very popular in the Middle Ages, when a couple whose love affairs were not happy were often termed *Pyramus and Thisbe*. The history is told in the fourth book of Ovid's "Metamorphoses," and in brief is this:—Pyramus and Thisbe were lovers, natives of Babylon, but their parents were opposed to their marriage, and the young couple used therefore to meet clandestinely by night. Once, when they had arranged to meet by the tomb of Ninus, Thisbe, who arrived first at the spot, was startled to see a lioness instead of her lover. She ran off frightened, but in running left her robe, which the lioness tore, and, as the animal had just been feeding on an ox, covered with blood. When Pyramus arrived he saw this robe, and thought Thisbe was killed, whereupon he killed himself. When Thisbe returned, she saw her lover's dead body, and then put an end to her own life. Shakespeare introduces the story into his play of *A Midsummer Night's Dream*.

PYRRHIC DANCE, *pir'-rick*.—A war-dance of the ancients, said to take its name from Pyrrhus, son of Achilles, and in the Doric states, where it arose, it was as much a military exercise as an amusement. It was danced to the music of the flute, and represented the actions of a warrior either assailing the enemy or defending himself against attack. Julius Cæsar introduced it to Rome, where it soon became much liked. A Grecian dance of the present time, the *Romaika*, is held to be a relic of this ancient dance.

PYTHIAN GAMES.—The name of a great national festival of the ancient Greeks, said to have been originally held in honour of Apollo, and, according to legend, to have been instituted by him. They were held on the Crissean plain by Delphi, and originally were restricted to singing with—cithern, playing, but afterwards horse-racing and athletic contests were added; as also were contests in various departments of art, different kinds of poetry, historical recitations, &c. The prize was a wreath of laurels and a palm branch. These games are believed to have lasted until 400 years after the birth of Christ.

Q.

Q, ku.—The 17th letter and 13th consonant of our alphabet. It corresponds with the Hebrew and Phœnician *koph*, but it has no place in the Greek, old Latin, or Saxon alphabets. In old Latin, the words that are now spelled with a *qu* had a *c*; as *cotidie* for *quotidie*. *Q* is never sounded alone, but in conjunction with *u*, and most grammarians are disposed to regard it as a superfluous letter, whose place could be supplied by *k*. The letters with which it interchanges are *c* and *k*. As a numeral, it stands for 500, or, with a dash over it, for 500,000.

QUADRIGA, kwod-ri'-ga.—A chariot drawn by four horses yoked abreast. (See *CHARIOT*.)

QUADRILATERAL, kwod-ril-at'-e-ral.—The name given to a set of four strong fortresses supporting each other, and so placed that if one be besieged, the garrisons of the others can harass or vanquish the besiegers, unless they are in such large numbers as to effectually besiege the whole four. The word has also been used to signify any combination of four strong supports, thus, the novels *Vanity Fair*, *Pendennis*, *Esmond*; and *The Newcomes* have been called the quadrilateral of Thackeray's fame.

QUADRIVIVIUM, kwod-ry'-vi-um.—A term used in the mediæval schools to signify a higher course of study. It consisted of four subjects; arithmetic, astronomy, music, and geometry. A lower course of study was called the Trivium, which consisted of three subjects.

QUÆSTOR, kwes'-tor.—The title of a class of ancient Roman magistrates, dating as far back, according to most accounts, as the time of the kings.

QUANTIFICATION OF THE PRE-DICATE, kwant-i-fi-ka'-shun.—A term in Logic, introduced by Sir W. Hamilton, to denote the art, or process, of logical doctrine, by which the quantity of a proposition is determined or expressed. (See *LOGIC*.)

QUANTITY. (See *PROSODY*.)

QUARREL, OR QUARRY, kwor'-rel (Lat., *quadrus*, square; and *quatour*, four).—In Architecture, a square pane of glass placed diagonally.

Quarrel.—A term used in ancient and mediæval times to denote a square-headed arrow or bolt for a cross-bow.

Quarrel (Lat., *queror*, to complain).—Literally, means a complaint, and used generally in the sense of an angry dispute; a disagreement.

Quarrel (Lat., *quare*, wherefore).—A word used by Bacon to express the reason why or wherefore.

QUARRY, kwor'-ree (Fr., *coirée*).—The reward given to the hounds (from Lat., *cor*, the heart, which was often so given). Literally, means the entrails of the animal given the dogs after the chase, anything hunted, dead game, &c.

QUART, kwort, a fourth part.—As a measure of capacity, it denotes the fourth part of a gallon. It may be noted, however, that the ordinary quart bottle contains only a sixth part of a gallon, hence has arisen the term *Imperial quart*, which means the fourth part. The poet Spenser used the word *quart* in the same sense as *quarter*.

QUARTER, kwor'-ter.—The fourth part of anything. The measure of capacity containing 8 bushels of 4 pecks each, and said to be called a quarter from being the fourth part of a chaldron. It has been said, however, that this measure is an exact quarter of a cope in the Great Pyramid, and that it derived its name from this fact. (See "Our Inheritance in the Great Pyramid," by Piazza Smyth). The name is also given to a weight of 28 lbs., being the quarter of 1 cwt. (112 lbs.)

Quarter.—In war, the name given to the sparing the life of a prisoner or vanquished enemy. Doubtless the word is derived from the term to give quarters or lodgings, and the prisoners, instead of being slain, were sent to the captor's quarter.

Quarter.—A term applied to lodgings—i.e., the district or place where a person lives or lodges.

Quarter.—On board ship, the portion of the ship sides between the stern and the mainmast. It is generally held to be about a fourth or fifth of the ship's length, commencing at the stern.

Quarter, kwort'-er.—In Heraldry, is an ordinary of quadrangular form, resembling a banner, and laid as a charge upon the field, of which it contains one-fourth part, as the term implies. In the corrupt Latin of ancient times it was rendered by *quartiera*, and by Uredus, *pars*, which might apply to any other part; but the latter author also uses the word *quadrans*. The quarter is formed by two lines, one drawn from the side of the shield in traverse, to the centre, and the other perpendicularly from the chief to meet it in the same place.

QUARTER DAYS.—The days which begin the four quarters of the year—viz., Lady-day, or the 25th of March; Midsummer-day, or the 24th of June; Michaelmas-day, or the 29th of September; and Christmas-day, or the 25th of December.

QUARTERING, kwort'-er-ing.—In Heraldry, is the marshalling, or regular arrangement or disposal, of various coats in one shield, thereby to denote the several alliances of one family with the heiresses of others. Unless they are sovereign queens or princesses, women, by the rules of heraldry, bear their paternal arms in a lozenge or shield of that shape; and when they marry, and are not heiresses, it has been the custom to impale their arms with those of their husbands, in order to show the alliance, which is called *baron* and *femme*.

QUARTETT, QUARTETTE, OR QUARTETTO, kwor'-tel'-to (Ital.).—A musical composition in four parts, either for four voices, with or without an accompaniment, or instruments, generally of the stringed kind—i.e., two violins, one viola, and one violoncello—in which no one of the four parts can be omitted without spoiling the effect of the whole composition. Some splendid specimens of instrumental quartettes may be seen in the works of Haydn, Mozart, Beethoven, the two Rombergs, Spohr, Onslow, and Mendelssohn.

QUATRIN, kwot'-trane.—The name given to a verse of four lines rhyming alternately, or to four verses of a longer poem, if they contain an idea complete within themselves.

QUATREFOIL, OR QUARTERFOIL.

—In Architecture, the name given to an ornament much used in Gothic architecture, and consisting of a panel, or an opening in tracery, &c., divided into four leaves.

In Heraldry, a bearing or device on a shield depicting a flower with four leaves.

QUAVER, *kwai'-ver* (Welsh, *cwibiaw*, to quaver, to trill).—In Music, a character or note, equal in duration to $\frac{3}{4}$ of a semibreve, $\frac{1}{2}$ of a minim, or $\frac{1}{2}$ of a crotchet.

QUEEN'S COLLEGE, CAMBRIDGE.

—This college was originally founded in 1446, by Margaret of Anjou, wife of Henry VI., and a few years later, re-founded by Elizabeth Woodville, queen of Edward I. There are a president and 14 fellows, and according to the new statutes, there "shall be at least 14 scholarships." In addition to these, there are five exhibitions, and a number of prizes, while there is a sum of £130 to be given by the president to students of limited means. (See CAMBRIDGE UNIVERSITY.)

QUEEN'S COLLEGES, IRELAND.

These were constituted in 1845, at Belfast, Galway, and Cork, to afford high-class education to all denominations in Ireland. They were incorporated in 1850, as the Queen's University, which, however, was dissolved in August 1879.

QUEEN'S COLLEGE, OXFORD.

This hall was founded in 1340, by Robert de Eglesfield, by license from Edward III., under title of "The Hall for the Queen's Scholars." The original number of the Provost and Fellows was fixed at 13, in memory of our Saviour and His 12 apostles, and the largest number of poor boys to be educated was fixed at 72, in memory of the disciples. The college has, however, departed very far from the wishes of its pious founder. In 1736, a separate foundation was given to Queen's College, by John Michel, which consisted of eight open fellowships and four open scholarships. The foundations are now consolidated, and there are now a Provost, 19 Fellows, 15 Scholars, and some Exhibitioners. (See OXFORD UNIVERSITY.)

QUEEN'S YELLOW. (See YELLOW COLOUR.)

QUILLED, *kwild*.—In Heraldry, a term signifying that the quill differs in colour from the remainder.

QUILLS, *kwills*.—Large feathers from the wings of birds. Those used for pens are usually procured from the wings of the goose, though for very fine writing and for drawing the quills of the crow are the best.

QUINTESSENCE, *kwint-es'-sents*.—The purest or highest essence of anything. The word comes down to us from very ancient times, for some of the Pythagorean philosophers spoke

of there being a fifth essence—quintessence—an element purer and finer, and beyond the four elements of earth, air, fire, and water, into which it was then believed all things could be resolved.

QUINTETTO, or **QUINTETTE**, *kwintet'-to*, *kwint-tet'* (Ital.).—A musical composition in five parts, each of which is obligato, and performed by a single voice or instrument.

QUINTIN, or **QUINTAINE**, *kwint'-tin*.—An ancient instrument, used for practising tilting. It consisted of a cross-bar turning on a pivot at the top of a pole, and on one end of the cross-bar was a board, at which the tilter aimed his lance, while from the other end of the bar swung a heavy bag of sand. The skill of the tilter consisted in striking the board as he rode, so quickly that the sand-bag could not hit him.

QUINTUPLET, *kwint-tup'-let*.—In Music, a group of five notes.

QUIRE, *kwire* (from the French word *cahier*, and old French, *quaier*).—Twenty-four sheets of paper doubled once, and placed one within the other.

QUIRK, *kwirk'*.—In Architecture, the name given to a twist or turn from a line, as a small angle between mouldings.

QUIRK, *kwirk*.—An artful evasion in conversation, meaning a twist or turn from the direct line of truth; the term is also applied to a smart saying, a slight flight of fancy, &c.

QUOIN.—In Architecture, a stone forming the solid angle of a building; the word is also applied to a wedge used to steady a stone.

QUOITS, *koits* (Dan., *coite*).—An English out door game, somewhat resembling the ancient pastime of throwing the discus. The game is played with "quoits," which are round flat metal rings, varying in internal diameter from two or three inches to a foot. Two iron pins, or *hobs*, as they are called, are placed in the ground, which is generally puddled with clay, at a distance of about fifteen or twenty yards. The game is usually played by two or four persons, who chose sides, and play in regular succession. The endeavour of the players is to throw their quoits from one hob over the other, or as near to it as possible. The quoits nearest to the hob score to the player, and the game is won by the side which makes a given score first.

QUONDAM, *kwon'-dam*, (Lat., formerly).—Former or, anything that was formerly, thus a quondam friend means a former friend; a quondam doctor, would mean a man who was formerly a doctor.

QUOTIENT. (See ARITHMETIC.)

R.

R, *ar*.—The 18th letter and 14th consonant of our alphabet. It is to be found in all languages except the Chinese, and some of the tongues of the North American Indians. The Romans borrowed it from the Greek *rho*, which is derived from the Hebrew and Phœnician *resh*. It is a lingual and a liquid consonant or semi-vowel, being formed by a guttural expulsion of the

breath, vibrated through the mouth with a sort of quivering motion of the tongue, drawn back from the teeth, and advanced with the tip a little elevated towards the palate. It is one of the last which children learn to pronounce, and is frequently exaggerated by the Irish and softened down by the English. In pronunciation it is frequently confounded with *w*, as *rubbish*, pro-

nounced *wubbish*, and an *r* is frequently substituted for a *w* at the end of a word, especially if the next word begins with a vowel; as *winder* for *window*, *piller* for *pillow*. It is interchangeable with the letters *l*, *n*, *rn*, and *s*, and is apt to place itself at one time before and at another time after a vowel. It is also apt to disappear from words in the neighbourhood of several consonants. As a Roman numeral, *R* stands for 80, and with a dash over it for 80,000. In Greek, with a mark over it, it stands for 100, and with a mark under it for 100,000. In medical prescriptions, *R* or *R* stands for *recipe* (take).

RACING, HORSE. (See HORSE RACING.)

RACKETS, *rak'-ets*, (Fr., *raquette*, Ger., *Racket*).—A game played by striking a ball against what is called a head-wall, and returned to the same wall at the bound, each player endeavouring to strike it against the wall in such a way that his adversary may not be able to return it. The player who does not return it loses a point, or has his "hand out"—that is to say, he forfeits the situation in which he would be able to add to his score of the game. Great skill is required in order to play the game of rackets well. There are several open racket-courts in London. One of the most celebrated courts, where many a man became a racket player, *malgré lui*, is now closed; namely, that in the Queen's Bench prison.

RAGULEY, RAGULED, or RAGULATED, *rag'-u-le*.—A term in Heraldry applied to any ordinary that is notched or jagged in an irregular manner.

RAILS, *rays*.—In Architecture, literally straight pieces of wood, and is applied to the pieces over balusters or between posts, &c. The word is also used to denote the horizontal bars enclosing the panels in panel-work, such as doors or shutters; the uprights in such work are called styles.

RAKING MOULDING.—In Architecture, ornamental moulding sloping at an angle. (See MOULDING.)

RAKOCZY-MARSCH, *rak'-ots-sy-march*.

—A grand national military air of the Magyar Hungarians, having much the same inspiring and exciting effect upon them, and especially was this the case in the revolutionary period of 1848, as the *Marscellaise* has on the French. The air is said to have been composed by Francis Rakoczy II. of Transylvania.

RALL, RALLEN, or RALLENTANDO, *ral-len-tan'-do*.—In music, a direction used to indicate that the music is to be played gradually slower. *Rall* and *Rallent.* are simply abbreviations of *Rallentando*.

RAMAYANA, *rahm-ah-yahn'-ah*.—The name of a great epic poem of ancient Hindostan, said to be fairly entitled to a place in the literature of the world, equal to Homer's epics. It relates the history of Rama. (See RAMA and VISHNU.) It is written in seven books, and contains some thousands of epic verses. Various editions have been published in Calcutta and Bombay, and the first two books have been rendered into English prose by Carey and Marshman. (See HINDOO LITERATURE.)

RAMPANT, *ramp'-ant* (Fr.).—In Heraldry, a term applied to the lion, leopard, or other animal, when represented standing on his hind-

legs, rearing up his fore-feet in the attitude of climbing, and showing only half his face. It differs from *salient*, in which the animal appears to be springing forward.

RANCHEROS, *ranch'-ee-ros*.—The name given to a class of half-breeds—Indians and Spaniards—living in Mexico. They are superb hunters and riders, and are the bravest men in the Mexican army.

RANK, *rank'*.—Grade or degree of command, of social position, &c. In the army, those officers placed above the others are said to be of higher rank. Rank, in the army, is somewhat difficult for a civilian to understand, as there are three varieties. There is *regimental-rank*, the grade which an officer may hold in his regiment; there is *brevet-rank* (see BREVET), the grade by which he may be entitled to rank in the army; there is also *relative-rank*, by which those officers who have a staff appointment rank as colonel, although they may not be in command of a regiment. An officer may hold all three of these ranks. Thus he may be captain in a regiment, and for distinguished services promoted to the rank of a lieutenant-colonel in the entire army, and he may also be appointed to a position on the staff of a general, by which he holds the relative rank of colonel. When with his regiment, however, he would simply act as captain of his company. In the navy there are none of these varieties of rank. (See RELATIVE RANK.)

RANK AND FILE.—The name given to the whole body of soldiers, including corporals, bombardiers, and privates. The words, no doubt, come from the ranks or rows of men standing in a line or in a file—*i.e.*, one behind the other.

RANZ DES VACHES, *ronz da vash*.—The name of a celebrated national air, sung or played by the herdsmen of the Alps, in Switzerland, when they drive out their herds to the mountains. It consists of a few simple intervals, and is adapted to their instrument, the *Alpen horn*, or horn of the Alps, and has a beautiful effect in the echoes of the Swiss mountains. This simple air is greatly cherished by the natives, who are said to be seized with irrepressible homesickness when they hear it played in foreign countries.

RAPIER, *raj'-pyer*.—Formerly the name of a long sharp broadsword, but for the last hundred years or so, the name of a thrusting, edgeless weapon, very finely pointed, and made of highly-tempered steel.

RAPPAREE, *rap-par-ee'*.—A word in common use about two centuries since, and applied to wild Irish robbers, because they were armed with raparies or half-pikes.

RAS.—In Physical Geography, an Arabic word signifying cape, or head; thus, the eastern point of Arabia is called Ras-el-had. The word is in use on the North African, Maltese, and Sicilian coasts, as well as on the coasts of Arabia.

RATES AND TAXES. (See TAXES AND RATES.)

READING, PUBLIC, *read'-ing*.—The utterance of written or printed words with appropriate tones of voice, gestures, and expression. When uttered from memory, public reading is perhaps more correctly spoken of as Recitation or Recital. To read well is an art requiring great

study, practice, and various qualifications, and it is a great pity that it should be so neglected. (See **ELOCUTION, DELIVERY, ORATORY.**)

REBATED, *ree-bay'-ted*.—A term in Heraldry, meaning that the points are cut short or broken.

REBECK, *ree'-beck*.—An ancient musical instrument, tuned in fifths, the forerunner of the violin. Some had only one string, others three.

REBUS, *re'-bus* (Lat.).—This word in English has several significations: (1.) A peculiar kind of enigma or riddle; an old and quaint mode of expressing words or phrases, by the pictures of objects whose names bear a resemblance to the words, or to the syllables of which they are composed. A rather pretty example of this kind of wit is mentioned by the famous antiquarian Camden. A gallant expressed his love to a woman named *Rose Hill*, by displaying on the border of his coat a rose, a hill, an eye, a loaf, and a well; which, in the style of the Rebus, reads, "*Rose Hill I love well.*" (2.) In Heraldry, a coat of arms which bears an allusion to the name of the person, as three castles for *Castleton*; a kind of bearings which are of great antiquity. (3.) Rebus is a word used by chemical writers, sometimes to signify sour milk, and sometimes for what they call the ultimate matter of which all bodies are composed.

RECITATIVE, *res-e-ta-teev'* (Ital.).—A species of musical recitation (hence the name), or, in other words, a kind of artificial declamation adapted to musical notes, forming a sort of medium between common recitation and measured air or song. It was first introduced at Rome, in the year 1660, by Emilio del Cavaliere, and was soon after adopted throughout Europe. Recitatives differ from airs in having no fixed time or measure, the singer regulating the length of the notes according to his own conception of the degree of emphasis and expression required. They are written in common time, of four crotchets in a bar, and have no fixed or permanent key; indeed, they generally begin in one key and end in another, modulating frequently *ad libitum*. In this species of composition, strict attention must be paid to all the rules of prosody, as to long and short syllables, accent, emphasis, punctuation, &c. The words are never repeated, and only one note is sung to each syllable; thus all grace notes are excluded, except in some *passionato* passages, where an occasional rapid flight of notes may be introduced to connect distant intervals. A simple or *unaccompanied* recitative is written with no accompaniment, but a bass part, consisting of a few occasional chords, generally played on the pianoforte. Accompanied recitative, on the other hand, has, besides the bass, parts for other instruments, as the violins, hautboys, flutes, &c. The great use of recitative consists in its capabilities for passing quickly from subject to subject, serving for dialogue, and to prepare important changes in great musical pieces. Some of the most splendid specimens of recitative may be found in the works of Gluck, Haydn, Mozart, and Beethoven.

RECITATION. (See **READING, PUBLIC.**)

RECONNAISSANCE, RECONNOITRING, *re-kon'-noy-ter-ing* (Fr., *reconnoître*).—Terms used in military language, which signify the obtaining of information by ocular inspection of the situation of an enemy or the nature of a

position. Reconnoitring is one of the most essential departments of military art, and is requisite before every important movement. It frequently brings on an engagement, and large bodies of troops are called out to cover the reconnoitring party and to make prisoners.

RECORDER.—A musical instrument something like a flageolet, having its pitch an octave higher than the flute, and giving a soft and pleasing sound. The mouthpiece is something like the beak of a bird, and the lower part is wider than the upper. Of late years it has been very little used, though formerly it was in fair repute. Both Shakespeare and Milton speak of it, the latter calling it the "soft recorder."

RED HAND.—In Heraldry, the distinguishing badge of the baronets of Great Britain and Ireland. It was granted to them on the institution of the order in 1611, and consists of a hand sinister, erect, open, and couped or, the wrist gules, and may be borne upon a canton or on an escutcheon.

REED.—In music, a small piece of metal, having a brass spring attached to it in such a way that when a current of air is admitted it vibrates and produces a musical sound. There are two kinds, the *beating* reed and the *free* reed. The former must be placed in a pipe in order to produce a sound, the latter can be used without a pipe, and indeed is often so used in a Harmonium. It is also adapted to organ pipes. (See **ORGAN** and **HARMONIUM**.) The term reed is also applied to the mouthpieces of hautboys, bassoons, &c.

REEL, *reel*.—A lively Scotch dance, usually written in the time of four crotchets in a measure, but sometimes in jig time of six quavers. It is often danced by two couples, but a greater number may join.

REGALIA, *ree-gay'-le-a*.—In English Heraldry, the term Regalia signifies the royal insignia—the sceptre with the cross, the sceptre with the dove, St. Edward's staff, four different swords, the globe, the orb with the cross, together with the crown jewels, and other articles used at coronations. These are all now exhibited in the Jewel Room of the Tower of London, together with a smaller crown, sceptre, and orb, for the crowning of a queen-consort. The regalia of England were before the Reformation in the keeping of the monks of Westminster Abbey, and it still falls to the office of the dean and prebendaries of that church to present them to the sovereign at the coronation. As during the Civil War several pieces of the regalia were lost or were destroyed by the Parliamentarians, new ones were made for the coronation of Charles II., and these, having been at times repaired and altered, are still used, thus the St. Edward's staff, or staff of Edward the Confessor, mentioned above, is not in reality that sovereign's, as it was, in fact, made for Charles II.

REGARDANT, *ree-gar'-dant*.—A term used in Heraldry and applied to the position of an animal which has its head turned backwards. (See **PASSANT, RAMPANT.**)

REGATTA, *re-gat'-tah*, (Ital.).—A term originally used in Venice, signifying a grand *fête*, in which the gondoliers contended for the superiority in rowing their gondolas on the canals which intersect the city. The term has

been received into nearly every European language, and signifies the diversion of all kinds of boat-racing, either by sailing or rowing and on fresh or salt water. During the summer months in all parts of England, regattas are of frequent occurrence.

REGIMENTAL SCHOOLS, *rej-men'-tal*.—But recently in existence in the English army, having been established only since 1846. When it was first proposed to establish them, much opposition was made to the project by some military men, who asserted that if the schoolmaster were brought into cantonments or garrisons, there would be an end of military discipline in a year. In spite of this, however, a training institution for regimental schoolmasters was attached to the Royal Military Asylum at Chelsea, from whence the various regiments of the army have been supplied with schoolmasters; and experience has shown the groundlessness of the alarm with which the undertaking was at its outset received. Not only has discipline not been relaxed in the army, it has been braced up; crime is less frequent; the manners of the men are improved, their very language taking a different tone in proportion to the progress of education among them; and to be educated has grown into a fashion with them. The quality of the instruction given in regimental schools is high. In the first place, it is rudimental for children; and after the rudiments, it goes on to history (sacred, and of all other descriptions), geography, geometry, arithmetic, mathematics, as high up as algebra, and even into higher branches; mensuration and fortification.

REGISTER, ANNUAL. (See **ANNUAL REGISTER**.)

REGIUS PROFESSOR, *re'-je-us* (Lat., royal professor).—In the Universities, is a professor appointed by royal authority.

REINECKÉ, OR REINECKE DER FUCHS, *ri'-nek-ke* (*r*) *der fukes* (Ger., Renard the Fox).—Is the name of a celebrated German epic poem, which was first printed at Lübeck in the Frisian dialect in 1493, under the title of "Reynke de Vos." It has long enjoyed great popularity, and been translated into, probably, every language of modern Europe. It is a satire on the intrigues practised at the court of a weak prince. The characters are animals, the arch rogue being the fox, called Renard, who by hypocrisy and cunning, contrives to gain the favour of his sovereign king Noble (the lion), who loads him with honours. Nothing is known with certainty respecting the author, but by some is supposed to have been Henry Von Alkmaar, schoolmaster and tutor of the Duke of Lorraine, who is said to have translated it from the French. Poems of a similar nature were common in the 11th and 12th centuries, and Meon published at Paris, in 1823, the "Roman du Renard," written in French in the 13th century. One of the earliest works issued from the English press was "The History of Reynard the Fox," by Caxton, London, 1481. An edition entitled, "The History of Reynard the Fox," from the edition printed by Caxton in 1481, with notes and an introductory sketch of the literary history of the romance, by W. J. Thoms, was published in London, 1844.

RELATIVE KEYS, *rel'-a-tive*.—In Music, are the keys the first, third, and fifth degrees of which form a common chord composed of notes

of the key to which they are related. Thus, the keys most nearly related to a major key are its dominant or fifth above and its sub-dominant or fifth below, also its relative minor key, with the dominant and sub-dominant of the minor key, and into these the major key may most easily pass. The relative keys of C major are G major, F major, and A minor.

RELATIVE PRONOUNS.—Those words which not only stand in the place of nouns, but relate to an antecedent which has gone before it. Thus, "the man *who* was here last night has gone on to London." In this sentence "who" is the relative pronoun. *Who* is used for and instead of persons; *which* for the inferior animals and for things. (See **PRONOUNS**.)

RELIEVO, *re-lec'-vo* (Ital., *rilievo*).—A term applied to sculptured work which is raised above a surface with which it is connected. There are three gradations of rilievo: *basso-relievo*, in which the figures project only slightly from the ground on which they are sculptured; *mezzo-relievo*, in which the figures stand out about half their natural proportions, the other half appearing immersed in the groundwork; and finally, *alto-relievo*, in which the figures stand completely out from the ground, being attached to it only here and there, while in most places it is worked entirely round, as in single statues. Relievo, with the Greeks, was originally very flat. Phidias brought it to perfection; and the cornices and metopes of the Parthenon, and the temple of Apollo at Bassæ, near Phigalia, in Arcadia, preserved by a fortunate accident, are still unrivalled models of rilievo. Amongst the ancient Romans, who strove to cover want of spirit in their art by workmanship, the high rilievo (*altissimo-relievo*) was adopted: in this style the figures stood almost entirely out from the ground, which was covered with other figures. The best examples of rilievo in England are the Elgin marbles in the British Museum.

RELIQUARY, *rel'-i-kwar-y*.—A box for holding relics. Reliquaries are made of all kinds of materials, such as wood or iron, or even stone and the precious metals, and are frequently ornamented with rich jewels.

RENAISSANCE ARCHITECTURE, *re-nais'-son* (*g*) (Fr., new birth).—A term applied to that period of the *Revival* when the classical began to be again introduced after the mediæval styles. The term is not confined to architecture alone, but is also used in ornamental art and sculpture. The Architectural Renaissance had its origin in Italy, where the Gothic style never had a strong footing. With the revival of old Roman literature, there arose a strong desire for the study of classic art, which was soon followed by an attempt to imitate it; and as early as the 14th century may be observed traces of the imitation of Roman architectural forms. The Renaissance, properly so called, however, dates from the early part of the 15th century, when it began to assume consistency and character: in the following century it attained its full development. Every country had its peculiar renaissance, although each was derived from that of Italy. These were named respectively after the different nations in which they appeared; as French, German, English Renaissance. The latter style is usually called Elizabethan architecture. (See **ELIZABETHAN ARCHITECTURE**.) They all bear a general family likeness, but each exhibits charac-

teristic features of its own. The Renaissance in general was founded upon the Roman *antique*; not upon the style of the temples, but upon that of their triumphal arches, baths, and other edifices. Neither the portico nor the continuous colonnade were taken as models, but such buildings as the Coliseum, where several orders are introduced, principally for purposes of decoration. Both in the Renaissance and Cinque-cento styles, entire orders are merely used as embellishments. In structures where columns are employed for actual support, it is only in combination with arches springing from them, the columns serving to the arches in place of piers. Much of the Italian Renaissance is *astylar*, with either a full entablature or a cornice crowning, and proportioned to the rest of the edifice. This broad and simple method of treatment was greatly affected by the Roman and Florentine architects during the period of the Revival, and contrasts strongly with the Renaissance in France and other countries, which is characterized by multiplicity of parts and numerous divisions and breaks. In English Renaissance, one deviation from the Italian was the frequent employment of coupled columns or pilastres, which was, in some cases, caused by the necessity for wider piers between the windows, which retained their Tudor or English character. In the Italian Renaissance generally, the detail is somewhat dry and meagre, the entablatures, even to Corinthian columns, consisting of plain mouldings. In our country and in France a much more florid style was adopted. These species of the style are marked by a profusion of enrichment and carvings in mouldings, panels, and friezes, by arabesque foliage and medallions, which frequently cover considerable surfaces. The carvings generally consist of grotesque animals, foliage, &c., extended into scroll-work, and interlaced curiously and capriciously. A similar kind of sculpture, only purer and more graceful, is to be met with in the Italian style. One of the most characteristic features of the Renaissance style is the profusion of minute ornament in building, furniture and decoration generally. French Renaissance dates from the reign of Louis XII., who employed Italian artists and architects. There are several magnificent specimens of this style of architecture in France: among others may be mentioned the interior, at least, of the Palace of Fontainebleau. The Renaissance is considered by French writers to have risen to its highest point of excellence under Philibert Delorme, in the reigns of Henry II. and Francis II. The Palace of Heidelberg, if completed, would have been the most splendid specimen of the Renaissance in Germany. In general, the German Renaissance was more extravagant in construction and decoration than even the French. There are many interesting specimens of the Renaissance style in Spain, which exhibit much elegance and taste.

REPEAT, re-pea't.—In Music, a sign consisting of two perpendicular and parallel lines drawn through the staff with two dots before them, placed between the lines of the staff. This sign is placed at the close of the strain or part to be repeated, a reverse repeat (*i.e.*, a sign having the dots on the other side of the two perpendicular lines) being placed at the point where the repetition begins, thus the passage to be repeated is enclosed between the two signs. When the following strain is to be repeated, as well as the preceding, the two dots appear on each side of

the two lines. When one part is to be repeated from the commencement of the piece, only the one sign is placed, with the two dots on the left hand, at the close of the part to be repeated. The words *Da Capo*, abbreviated D.C., indicate that a piece is to be repeated from the commencement; and if it is only to be repeated to a certain point, it is shown by the word *Fine* (Ital., end), or letter F. placed above it. The letters D.S. mean that it is to be repeated from the point where :S: is placed over the music.

REPORTING, REPORTER, PARLIAMENTARY REPORTING, re-port'-ing.—The art of making reports of speeches and proceedings at public meetings, &c. This is now usually done by shorthand writers, who either write down the speech verbatim, or condense it as they write. With regard to Parliamentary reporting, it is only of recent years comparatively that the debates in the Houses of Legislature were reported, or, indeed, were permitted to be made public, though publishers, even as far back as Dr. Johnson's time, attempted to give some details of what occurred. Thus we find Lord Brougham lamenting in his *Historical Sketches of Statesmen during the Reign of George III.* that through the imperfect state of Parliamentary reporting in the time of Lord Chatham, but little of his eloquence has been left us. It was, however, only after a long struggle that the Legislature allowed reports of its proceedings to appear in the press, or that a system was perfected which enabled such reports to be made. Perhaps Sir Symonds d'Ewes, who left a *Journal of Queen Elizabeth's Parliament*, may be regarded as our first Parliamentary reporter, though the *Parliamentary History of England*, compiled by Cobbett from old records, Rolls of Parliament, &c., give a very complete account of ancient British Parliaments down to 1625. The Debates of the House of Commons in 1620 and 1621 were published in two volumes at Oxford. These were taken from notes supplied by a member, and were included in Cobbett's *Parliamentary History*, which may be regarded, in some senses, as the most valuable historical work we possess in our language. In 1640, Rushworth, the assistant clerk in the Long Parliament, took down any important speech in a kind of shorthand, and when Charles I. endeavoured to arrest the five members, he is said to have given him (the king) a copy of his (the king's) own speech. Without doubt, Rushworth's *Remarkable Proceedings in Parliament* form a very valuable portion of his *Historical Collection*. Sometimes a member sent accounts of Parliamentary proceedings to his constituents. Thus the famous Andrew Marvell supplied information of this description *daily* to persons at Hull. But it was not until about the end of the 17th century that meagre reports of proceedings in Parliament appeared furtively in the public journals. These appear to have been slyly supplied by some of the more daring members themselves. In 1698, the Lords passed a standing order, which, by the way, we believe is still unrepealed, declaring that it is a breach of the privilege of the House to publish anything relating to the proceedings of the House without the permission of the House. Long before this, in the reign of Elizabeth, the House of Commons had declared that "speeches used in the House be not any of them made or used as table-talk, or in any wise delivered in notes of writing to any persons whatever, not being members of the House." Again

and again they declared it to be a high breach of privilege to publish such reports. Nevertheless, in the reign of Queen Anne a monthly pamphlet, the *Political State*, began to give an outline of the Parliamentary debates. In the next reign, an annual publication, the *Historical Register*, did the same thing. Then the *Gentleman's Magazine* and the *London Magazine* commenced reports of Parliamentary debates, and in the number of the former periodical for August 1735 is the report of a debate in the House of Lords, on the address which had taken place on the preceding 23rd of January. Reports of proceedings in Parliament were continued in the succeeding numbers. Sir John Hawkins says that the method pursued by Edward Cave, the publisher, for obtaining the reports was to take with him a friend or two, and having found means to procure for them and himself admission to the gallery of the House of Commons, or to some hidden place in the House of Lords, they privately took notes of the several speeches, and then adjourned to a neighbouring tavern where they compared and adjusted these notes, aided by their memories. Thus they fixed at least the substance of what they had heard, which was afterwards polished into a better form by an abler hand—William Guthrie the historian, who appears at times to have gone to the House himself, and in addition to his other abilities possessed a very retentive memory. These reports, however, were not published until Parliament was prorogued; and at first the names of the speakers were only occasionally hinted at by giving the first and last letters. By degrees, however, Cave became bolder, and the speakers' names were printed in full. Then the Commons passed a severe resolution (April 13, 1738) against the publication of the debates at any time, either when Parliament was sitting or during its prorogation. Notwithstanding this, however, the reports continued to appear, though they were thinly disguised as having taken place in a fictitious assembly. Thus in the *Gentleman's Magazine* they were headed "Debates in the senate of Lilliput," and in the *London Magazine* they appeared under the title of "Debates of a Political Club." At the end of the year, a key appeared to the names of the speakers. Towards the close of 1740, the famous Dr. Johnson succeeded Guthrie on the *Gentleman's Magazine*, and, according to Boswell, the worthy doctor had sometimes nothing more reported to him than the names of the speakers, and the part which they took in the debate. When, therefore, we remember the doctor's dislike to the Whigs, and also his eloquence and peculiar style, we may doubt the literalness of his reports, except that it appears to have been Cave's practice, on some occasions at least, to furnish copies of the speeches for members themselves to correct. In any case, there can be no doubt but that as a rule Cave took great pains to obtain accuracy. We should think, therefore, that there can but be little doubt that one reason of the persistence of the *Gentleman's* and the *London Magazines* to publish the report was that they were secretly abetted by some members themselves. On 23rd February 1743, Johnson was succeeded on the *Gentleman's* by Dr. Hawkesworth, author of *The Adventurer*. Four years after Cave and Astley, the printers of the *London Magazine*, were reprimanded, fined, and ordered into the custody of the Usher of the Black Rod, for reporting the trial of Lord Lovat before his peers,

and though they implored pardon, yet soon after the pertinacious Cave recommenced his practice of reporting the proceedings. About twenty years later, the House of Lords fined several papers for similar "offences," and in 1764, the *London Evening Post* was fined £100. Woodfall, of the *Public Adventurer*, was reprimanded by the House of Commons in 1776. Both Houses fought hard during several sessions to stop reports of all kinds, and about this term several printers and proprietors were fined and reprimanded. Public attention was aroused; and the demand for knowledge of the proceedings in Parliament was becoming so great, that newspapers continued the system with still greater energy in spite of all opposition. But the great and final struggle was at hand. The memorable contest began towards the close of 1770. Two printers, Thomson and Wheble, were ordered to appear at the bar of the House, and as they refused to appear, they were ordered into custody. Then later on six other printers, among whom were Woodfall of the *Morning Chronicle* and Miller of the *London Evening Post*, were complained of, and after a lengthy and stormy debate, during which no less than twenty-three divisions were taken, the printers were ordered to attend at the bar of the House. Some did so, and kneeling at the bar asked pardon for their "offence." These were forgiven and discharged, but Miller, like Thomson and Wheble, did not surrender. He was thereupon ordered into the custody of the serjeant-at-arms, whose messenger soon afterwards arrested Miller within the precincts of the city. Miller very promptly gave the messenger into custody for assault, and he was taken before the Lord Mayor, the Right Hon. Brass Crosby, who declaring the Speaker's warrant illegal, committed the messenger for assault and released Miller. In the same way, Aldermen Wilkes and Oliver discharged Thomson and Wheble, bound over the messenger to answer to a charge of false imprisonment and assault, and also bound over Thompson and Wheble to prosecute. The House was greatly enraged, and ordered the attendance of the Lord Mayor, who was himself a member of the House, and also of Alderman Oliver, at the bar of the House. After much discussion, some delay, and the greatest popular excitement, both these gentlemen were committed to the Tower. Wilkes was ordered to appear at the bar on the 8th of April, but apparently the House was tired of Wilkes in the struggles with him concerning the right of election and fought shy of encountering him further, for they adjourned from the 7th to the 9th of April. As the imprisoning power of Parliament ceases on its prorogation, Oliver and Crosby left the Tower in triumph on the 23rd of July, the day that the session closed; and that night the whole city was illuminated in honour of the event. Shortly afterwards, the messenger who had arrested Wheble was tried at the Guildhall, fined one shilling and sent to prison for two months. The high-handed proceedings of the House and the course of events had, however, aroused such strong feeling in the country, that next session the Commons allowed the matter to drop, and in a short time the House of Lords followed suit. Since then no attempt has been made to stop the publication of the debates, and indeed from time to time increased facilities have been given to the reporters. Nevertheless, the resolutions that it is a breach of privilege to publish the debates still remain un-

revoked, and until 1875 it was still possible for a member to exclude the public (including also the reporters) by calling the Speaker's attention to the fact that "strangers are present." During the American war the public were excluded more than once for a whole session, and indeed this power has frequently been exercised in later times during a debate, although reports of the proceedings are usually given by some of the members present to the newspapers. It is now, however, necessary to obtain a vote of the House before strangers are excluded. Mr. King-Harman obtained this on the 12th April, 1878, when reporters were excluded for three hours during the debate on the assassination of Lord Leitrim. That the system of Parliamentary reporting, brought as it now is to such a point of perfection, is of the utmost importance, no person will now deny, seeing that it exercises such remarkable and wide-spread influence. Through it the public in a measure listen to and assist at the deliberations of Parliament, and praise or condemn measures before they become laws, thus exercising no doubt a wholesome influence upon, and conducing to good government. Thus Sir Erskine May writes in his *Constitutional History of England*, "Parliament, as well as the public, has since profited by every facility which has been afforded to reporting."

System of Reporting.—Of late years the system or the method of taking reports of public meetings, especially of the proceedings in Parliament, has been greatly improved. In the early days of the *Morning Chronicle* when Woodfall was editor, and it was forbidden to take notes of the debates in the House, he used to sit in the gallery, listen attentively, and then write out a report next day. He possessed so wonderful a memory that he was known as "Memory Woodfall." This plan, however, of only having one reporter made the paper very late, the *Chronicle* often not being published until nine or ten at night. When Perry succeeded Woodfall, he therefore established the system of having several reporters, one to follow the other and to attend both Houses, night after night. By this plan the printers could work upon the first report while the second reporter was noting down or writing out his notes, and by this means Perry was able to bring out a fairly complete report of the debate next morning, and a report, moreover, which was of far greater average excellence than formerly. The superiority of this system was soon seen, and it came to be universally adopted. Many difficulties, however, were still in the way of obtaining full and detailed reports, and the duties of the reporters were rendered more arduous than need have been by the want of a proper gallery; their only place was the stranger's gallery, and to this they had only the entrance used by the public generally with whom they had to battle for places. This continued until one night when a highly important speech was expected from Mr. Pitt, who was then Premier, and the reporters were by some reason unable to obtain accommodation in the crowded gallery. Thereupon they took counsel together, and next morning, instead of the Premier's eloquent speech, there appeared an annoying blank space in the papers, together with a strongly-worded note on the state of affairs which had caused it. As the result of this, the upper bench of the gallery was afterwards devoted to the reporters' sole use, and it is said that this arrangement was made by the Speaker in concert with Pitt himself. Soon after, increased facilities were given, and the House of Lords also provided special accommodation for the reporters. When, in 1834, the Houses were rebuilt after the fire, special galleries were arranged for them, and rooms were also provided for the transcription of their notes. The system of taking reports which now prevails is that of having a staff of reporters for each paper in readiness, one to take up the post of the other at stated intervals. Thus there is always a representative of the paper in the gallery, and there he remains until another comes to relieve him, which is usually done

with unvarying regularity every quarter of an hour for the *Times*, which has the largest staff of reporters. The reporter, thus relieved, instantly adjourns to the transcribing room, and commences to write out his notes into readable long-hand for the printers. This done, he hastens in a cab to his newspaper office (where the mechanical arrangements of the printing department are also admirably arranged for the speedy and accurate despatch of work), and back again to take his turn of another spell of note-taking. By this means, and by dividing out the work among a number of compositors, it is possible when a minister has made an important speech to give him a proof in type of the earlier portions by the time he has resumed his seat. The use of the electric telegraph and telephone has also increased the facilities for Parliamentary reporting, and most of the provincial daily papers have now special wires whereby reports of speeches are telegraphed to editors at Edinburgh, Liverpool, &c.; and while the orators are yet speaking, the earlier portions are frequently in type in great towns hundreds of miles away before the speaker has concluded. The number of Parliamentary reporters on the staff of the *Times* is usually 16; on the *Daily News*, 8 (and this paper has recently adopted the telephone); on the *Telegraph*, 7; on the *Standard*, 9; on the *Morning Advertiser*, 8; on the *Morning Post*, 8. These gentlemen attend the sittings of both Houses, and when lengthy and important debates are proceeding in each, their numbers are increased. Altogether, there are nearly 80 reporters engaged in Parliamentary Reporting, including those on the press agencies, &c., which send reports to the provincial papers.

Qualifications of a Parliamentary Reporter.—The qualifications of a Parliamentary reporter are much higher than some persons seem to think. He must have an excellent memory, be smart, clever, and intelligent, and a complete master of an efficient system of shorthand (and the difficulty of acquiring this complete mastery will be remembered by all readers of "David Copperfield"), so as to be able to follow even the most rapid speaker with ease and certainty, and take down *verbatim*, if necessary, every word that is uttered. But usually *verbatim* reports are not needed of every speech, and the reporter must therefore be able to seize upon the salient points—often a difficult task in a rambling and discursive speech—and present a true and faithful abridgement, giving the "spirit" of the speech and its ideas and arguments. Many gentlemen who have been occupants of "the gallery" have since risen to great distinction, and of these perhaps Lord Campbell and Charles Dickens may be mentioned as the most prominent examples. (See NEWSPAPER, HANSARD.)

Reports, Law.—Collections of the decisions and opinions expressed on legal questions and issues. They are contained in numerous volumes, and present a narrative of each case, with the arguments on both sides, reasons for the judgment, &c. They exist in a regular series from the reign of Edward II. inclusive. An improved system of obtaining these reports is now in operation under the superintendence of the Council of Law Reporting. This system has been in operation since 1865, before which, from the time of Henry VIII., they were taken, often very inaccurately, by private persons. From the reign of Edward II. to that of Henry VIII. they were taken at the expense of the crown by the protonotaries, or chief scribes of the court. It will be advisable to point out the difference between the *record* and the *report* of a case. The former is a formal statement of all the papers necessary to its progress, such as the writ or summons, the pleadings, order for trial, verdict and judgment; but the *report*, as just stated, consists of the reasons for the decision, the arguments of counsel, and a brief account of the facts and pleadings to make the decision intelligible. The value of these reports is that it is a rule both in England and America that if a case has been deliberately decided by a court of high authority and appellate jurisdiction, the decision shall be binding upon lower courts when another case arises in which the same facts are involved. Nevertheless, such decisions have been at times overruled as not giving a correct view of the law, and much skill and ingenuity is frequently necessary to determine the value and pertinence to the point at issue of cases in the reports.

REPOUSSÉ, *re-pooos'-say*.—In the Fine Arts, is a term taken from the French, signifying a method of ornamentation in metal work, produced by hammering it up from the back and then working up, pressing and chasing the front surface. This work is usually executed in gold and silver, but it is also done in iron, copper, &c., and also in the softer white metals, such as pewter and Britannia metal, which are usually electroplated afterwards. Tea and coffee pots are often made in this way. Goods made thus from the white metals, are filled with pitch after being hammered up from the inside, and then put aside until the pitch has become solid. It then forms a support to prevent the pressing tools from indenting or pressing down more than is required. To remove the pitch when the goods are finished, it is melted and then drained out, the goods being boiled in alkaline lye to completely cleanse them. In the 16th century, shields, cups, and vases, &c., were executed in repoussé work, in the precious metals, and in steel, &c., and were carried to a high degree of excellence, the principal artist in this kind of work being Benvenuto Cellini.

RESOLUTION, *rez-o-lev'-shun*.—In Music, means the *resolving* of certain chords in other chords to avoid a sense of incompleteness being left on the ear.

RESPECTANT, or RESPECTING.—In Heraldry, a term signifying the figures of two animals placed facing one another; but when beasts of prey are so placed *rampant* (see **RAMPANT**), the name Rampant Combatant is given.

REST, *rest'*.—In Heraldry, a charge, the top part of which is something like the Pandean pipes and having the lower part curling round so as to appear like the rest or support of anything, such as a spear. The form has however varied considerably, sometimes resembling a clarion.

RESTS IN MUSIC, *rests*.—Characters of silence, each of which denotes a cessation of the sound, equal in duration to the note after which it is named: thus a semibreve *rest* is equal in length to a semibreve, a minim *rest* to a minim, a crotchet *rest* to a crotchet, and so on through all the different characters of notation.

REVERSE, *re-vers'*.—In Numismatics, the opposite side to the *obverse*; hence it is the side of a coin which does not bear the principal inscription or device, the obverse side being the principal side. The reverse usually has the value of the coin impressed upon it.

REVERSED, *re-vers'-ed*.—In Heraldry, the name given to a charge when it is turned upside down.

Reversion.—In Law, is the residue of an estate in lands, tenements, or hereditaments left in the grantor to commence in possession after the determination of some particular estate granted out by him. Thus, if a man seised in fee-simple conveys lands to A for life, or in tail, he retains the reversion in fee-simple. A reversion is never created by deed or writing, but arises from construction of law; but when actually vested, it is transferable like an estate in possession.

REVIEW, *re-vu'* (Fr., *revue*).—In a Literary sense, an essay on any book, showing its value or worthlessness, analyzing its contents and examining its statements; also, a periodical work containing such essays. The first review, properly so called, was the "Journal des Savans," commenced at Paris on the 30th May, 1665.

The most noted modern French journals of this class are the "Revue Française" and "Des Deux Mondes." The first publication of this kind in England was the "Monthly Review," begun in 1749; but it was about the beginning of the present century that the "Review" became the favourite organ of all sects or parties for disseminating their peculiar views on religion, politics, or literature. The "Edinburgh Review," commenced in 1802, and the "Quarterly Review," commenced in 1809, inaugurated a new era in this department of literature, and are still generally considered at the head of their class. For the most part, the leading reviews appear quarterly; but within recent times the tendency seems to have increased of having monthly, and even weekly reviews, good specimens of the latter class being the "Saturday Review" and the "London Review." In Germany, the oldest and still highly-prized Review is the "Göttinger Gelehrte Anzeige."

REYNARD THE FOX. (See **REINECKE DER FUCHS**.)

RHAPSODIST, *rap'-so-dist* (Gr., *rhapsodos*, from *rhapso*, I string together, and *ode*, a song).—Strictly, one who strings songs together; and is usually applied to a class of persons in ancient Greece, who earned their living by reciting the poems of Homer. It is believed that to these persons we are chiefly indebted for preserving the Homeric poems. In the present day, a rhapsodist is one who composes rhapsodies or collections of poetical effusions, descriptions, &c., strung together without any natural connection or necessary dependence.

RHENISH ARCHITECTURE, *Ren'-ish*.—A term given to the style of architecture prevailing in the countries bordering on the Rhine, at the time of Charlemagne. It progressed until the beginning of the 13th century, when it was superseded by the fashion of copying the Gothic architecture of France. It still, however, has sufficient distinctness and individuality about it to be complete in itself, and has some remarkable characteristics. The arches are round, and the earlier churches were circular, afterwards becoming rectangular (see **BASILICA**), having also a western *apse*, thus many German churches have an eastern and western *apse*. (See **APSE.) Richly carved capitals, and also arcaded galleries at the eaves, are notable features of this style, though perhaps the most remarkable characteristic, is the presence of a number of small octagonal or circular towers, apparently similar in origin to the round towers of Ireland. The cathedrals at Mayence, and Worms, are splendid specimens of the style, the latter being a remarkably magnificent building. Several of the churches at Cologne—e.g., the Apostles' Church, and also St. Martin's—present very beautiful and instructive examples. (See **ROMANESQUE ARCHITECTURE**.)**

RHETORIC. (See **ORATORY**.)

RHIME. (See **RHYME**.)

RHYME, *rime* (Sax., *rim*; German, *Reim*).—In Poetry, the consonance of sounds in the last syllable or syllables of verses. In the former case it is called *male rhyme*, in the latter *female*. Rhyme is a comparatively modern invention, and the product of a Gothic age. According to some good authorities, rhyme finds its proper place in

the middle, but not in the higher regions of poetry. (See PROSODY.)

RHYTHM, *rithm* (Gr., *rhythmos*, measure).—In Prosody, is the metrical arrangement of speech, denoting the measure of the feet, or the number and combination of long and short syllables, called also *metre* and *quantity*. But the most common application of this term is to express the *time* or duration of many sounds heard in succession, whether these sounds are musical, and such as are produced by voices or instruments, or without a determinate tone, as in the strokes of a hammer upon an anvil, and in the articulations of the voice in common speech in repeating poetry or pronouncing an oration.

RIBBON.—In Heraldry, a diminutive—one-eighth in width—of the *Bend*. (See BEND.)

RIFACIMENTO, *re-fatsh-t-men'-to*.—A re-making or re-establishment: a term most commonly applied to the process of recasting literary works, so as to adapt them to a changed state of circumstances; as when a work written in one age or country is modified to suit the circumstances of another.

RIDING. (See HORSEMANSHIP.)

RISING, *ry'-zing*.—In Heraldry, a term given to a bird when depicted as opening his wings as if to fly.

ROCOCO, *rok-oh'-ko*.—In Architecture, a very debased style which has been described as ornamentation in excess without principle or taste. It succeeded the first Italian revival, and flourished in Belgium and Germany during the eighteenth century, and in France under Henry IV.

ROLAND, SONG OF, *ro'-land*.—The most popular heroic poem throughout the Middle Ages. Roland, the hero of the poem, was, according to tradition, the favourite captain of Charlemagne, whose nephew he also was, and the poem recounts his doughty deeds against the Saracens, his death from wounds received in battle, and the series of sanguinary battles in which Charlemagne avenges his favourite's loss. The oldest copy of this song is now in the MS. department of the Bodleian Library at Oxford.

ROLL OF ARMS, *role*.—A list of arms either verbally blazoned or illuminated, or both, on a strip of vellum, and rolled up. These lists are of the greatest use in the history of heraldry. One—the oldest—now in the English college of arms, dates back to Henry III.'s time.

ROLL OF CAERLAVEROCK.—A heraldic poem in Norman-French, giving the names and arms of the knights at the siege of Caerlaverock, A.D. 1300. Sir Harris Nicolas has published this roll, with notes.

ROLL MOULDING.—In Architecture, a round moulding sometimes modified by the addition of a fillet, when it is called roll-and-fillet moulding. Roll moulding was much used in Gothic architecture.

ROMAN ARCHITECTURE, *ro'-man*.—It can hardly be said that the early Romans had any style of architecture of their own, since they borrowed their ideas of building first from the Etruscans and afterwards from the Greeks. In the time of Romulus, their dwellings were of the rudest description, being chiefly composed of

straw; and at a later period, their temples were only small square buildings, scarcely large enough to contain the statues of their deities. The first king who constructed works of a larger class requiring architectural skill was Ancus Martius. His first attempt was the building of the city and port of Ostia, at the mouth of the Tiber. During the time of Tarquin the elder, the city was much improved by the skill and enterprise of the Etruscans, the great circus was built, and the walls of the city constructed of large hewn stones. The great cloaca, or public sewer, was also commenced, together with the temple of Jupiter Capitolinus. The decoration and improvement of the city was greatly increased during the reign of Tarquinius Superbus; but the Capitol was not finished till after the expulsion of the kings. During the two first Punic wars, many temples were erected; but they do not appear to have been of great magnificence. Altogether, very little taste had been shown in the Roman buildings till their conquests extended, and they became intimate with the more costly buildings of their enemies. Metellus Macedonicus, the contemporary of Mummus, the victor of Corinth, was the first who built a temple of marble at Rome; but from that time, most of the larger edifices were built of that material. Grecian art and architects were also introduced about the same period. Under Julius Cæsar, many new and magnificent buildings were erected, and during the golden age, under Augustus, most of the finest edifices were built. Architects flocked from all quarters, and especially from Greece, to beautify the city. It was said of Augustus, "that he found Rome built of brick and left it built of marble." Under Vespasian and the Antonians, architecture flourished, as the remains of the Coliseum and the temple of Antoninus and Faustina testify. After this period, however, architecture declined till Constantine transferred the seat of government to Byzantium, when a new style was introduced. (See BYZANTINE ARCHITECTURE.) In comparing Greek and Roman Architecture, there can be no doubt that the former greatly excels in matter of taste. Amongst the Greeks, moreover, religion was almost the sole purpose for which architecture seemed to exist; whilst among the Romans, the temples were neither so extensive nor so numerous as their buildings of public utility or convenience. Besides a large number of engineering works, there are still the remains in Rome of fora, baths, palaces, circi, theatres, amphitheatres, libraries, halls of justice, triumphal arches, commemorative columns, mausolea, and similar buildings. The requirements of such edifices as these naturally led to the practice of composition and grouping, as one uniform plan of building would not have been suitable for such a variety of purposes. Another cause of variety lay in the employment of the arch, which allowed much greater latitude in composition than the entablature of the Greeks. The semicircular form of the arch next led to quite a new feature in architectural design—namely, the dome; a feature which gave a totally distinct character to the buildings in which it was employed. The Pantheon is the most remarkable example of this arrangement. The circular plan of building became also a favourite one for tombs and mausolea. Amongst the most noted of these was the mausoleum of Hadrian, the remains of which form the well-known castle of St. Angelo. A characteristic feature in Roman architecture, and one

that entered largely into the system, is the employment of order above order in the same building. While this arrangement is faulty, for it is incompatible with the requirements of the highest standards of taste, yet still, at the same time, it proves the Roman aptness of invention and versatility of design. The ordinance of architecture called the Roman order was invented by the Romans from the Ionic and Corinthian orders; and hence it is sometimes called the Composite order.

ROMANCE, *ro-mans'* (Ital., *romanzo*, Fr., *roman*).—Originally, signified any composition in the Romance language, or dialects which superseded the Latin after the fall of the Western empire: but as, in the course of time, the *Trouvères* of France composed a number of poems containing fictitious narratives of love and war, and their lays became popular all over France and the neighbouring countries, the name of romance was applied to all compositions, whether in verse or prose, in any language, which treated of marvellous or uncommon incidents, and the name has been retained to this day in several European languages, the Italians and French, for instance, calling a novel *un romanzo*, *un roman*; but the French call an historical ballad *une romance*, in the feminine gender. The distinction between a romance and a novel may be briefly described as follows. A romance is a fictitious narrative, in prose or verse, the interest of which turns upon marvellous or uncommon incidents; whilst the novel is a fictitious narrative, the events of which are accommodated to the ordinary train of human affairs and the modern state of society. The earliest romances known to exist are short narratives or ballads, which were probably sung on solemn or festive occasions, recording the deeds and praises of some famed champion of the tribe and country, or perhaps the history of some remarkable victory or signal defeat, calculated to interest the audience by the associations which the song awakens. The song on the battle of Brunanburgh, preserved in the Saxon Chronicle, is a genuine and curious example of this aboriginal style of poetry. It must be observed that at as early a period as the 8th century, a distinction existed between what may be called the *temporal* and the *spiritual* romances: the first destined to the celebration of worldly glory, the second to recording the deaths of martyrs and the miracles of saints. Most nations possess, in their early species of literature, specimens of both kinds of romance; but the proportion of each, as might naturally be expected, differs according as the genius of each nation leaned towards devotion or military enterprise. Thus, of the Saxon specimens of poetry which manuscripts still afford us, a very large proportion is devotional, whilst there are very few indeed of those respecting warfare or chivalry. On the other hand, the Norman language, though rich in examples of both kinds of romances, is particularly abundant in that which relates to battle and warlike adventure. Still, however different the spiritual romance might be from the temporal in scope and tendency, the nature of the two compositions did not otherwise greatly differ. The structure of verse and style of composition was the same, and the induction, even when the most serious subject was undertaken, exactly resembled that with which minstrels introduced their idle tales, and often contained allusions to them. The vast

subject of romantic literature, in its general and more extended sense, may be divided into the following branches:—1. Romantic ballads and traditional songs, which appear to be the oldest form, and which have existed amongst most nations in their primitive state.—2. The narrative romances of chivalry concerning the deeds of Arthur and the peers of the round table.—3. The romances concerning the supposed wars of Charlemagne against the Saracens.—4. The Spanish and Portuguese romances concerning the fabulous exploits of Amadis and Palmerin.—5. The classic romances concerning Jason, Hercules, and Alexander, those heroes having been transformed into knights of chivalry.—6. The epic romances of the Italians in the 15th and 16th centuries.—7. The spiritual or religious romances concerning the miracles of saints and the death of martyrs; such as the “*Contes dévots*” of the French, the “*Golden Legend*,” &c.—8. The pastoral romance, which Cervantes ridiculed, and which afterwards gave rise in the 17th century to the interminable and dull romances of Madame de Scudery and others, in which perfection of beauty and pure spiritual love are the chief ingredients.—9. The comic romances, which were written chiefly as parodies of the heroic and chivalrous romances; such were those of Rabelais, Mendoza, Scarron, &c.—10. The political romances, such as “*Télémaque*,” “*Lethos*,” &c. (See **NOVEL**.)

ROMANESQUE ARCHITECTURE, *ro-man-esk'*.—A term applied to several styles of architecture by various writers. The most useful and consistent application appears to include all the various kinds of building which originated from the Roman and which appeared after the decline of art in that country, but with this distinction, that they still retain the semicircular arch. Under this general title will therefore be included the debased ROMAN, the BYZANTINE, SAXON, NORMAN, and the several varieties of the same class. (For further information, see the articles referring to the above styles of architecture.)

ROMAN LANGUAGE AND LITERATURE. (See **LATIN LANGUAGE AND LITERATURE**.)

ROMANIC LANGUAGES, *ro-may'-nik*.—A name given to those modern languages, which are held to be directly derived from that of ancient Rome. They are,—the Italian—most like the mother language of any—the Spanish, Portuguese, French, Provençal, and the Walachian. (See the various headings.)

ROMAN SCHOOL OF PAINTING. (See **PAINTING**.)

ROMANTIC SCHOOL, *ro-man'-tik*.—In Literature, Poetry, &c., a name first assumed about the beginning of this century by a class of young German poets, &c., who wished to cultivate in art and poetry the same elements that characterized the Romance literature of the Middle Ages. (See **ROMANCE**.) Their efforts were undoubtedly a reaction against the unimaginative and pedantic artificiality of the previous period. A few years later, a similar school arose in France, of which, perhaps, Victor Hugo and Lamartine are the most conspicuous, the best and the wisest examples, for other followers of this school have rushed into egregious excesses, from which these two are to some extent free.

ROMPU, *rom'-pu*.—In Heraldry, a term given to a cheveron, of which the upper part is taken off, but remains in the field above it. (See **CHEVERON**.)

RONDO, OR **RONDEAU**, *ron-do'* (Fr.).—A musical composition, either vocal or instrumental, consisting of three strains, the first of which closes in the original key, while the others are so constructed with respect to modulation, as to reconduct the ear easily and naturally to the first strain.

ROOT.—In Philology, a word out of which a group of other and allied words have sprung by adding affixes and suffixes, &c. (See **PHILOLOGY**.)

ROOT.—In Algebra, the value of an unknown quantity in an equation. (See **ALGEBRA**, **EQUATION**.)

ROSE.—In Heraldry, is always drawn conventionally, and in full bloom, open front, never with a stem except when expressly directed.

ROSE-NOBLE.—An old English coin made of gold, and valued about 6s. 8d. It was stamped on one side with the figure of a rose.

ROSES, WARS OF THE.—A term applied to the civil wars which occurred in England between the reigns of Henry VI. and Henry VII. The two contending factions were the houses of York and Lancaster. The ensign of the former was a white rose, and that of the latter a red one—circumstances which gave the name to the wars which from 1460 to 1468 deluged the kingdom with blood.

ROUGE-ET-NOIR, *rooge-ay-noy'-s'* (Fr., red and black).—A game of chance played with packs of cards, on a peculiarly marked table, on which are diamonds painted red and black. It was prohibited in 1838.

ROULETTE, *roo-let'* (Fr., little wheel).—A game of chance which was the greatest favourite of all such games in Paris from about 1800 to 1838, when it was prohibited. Until 1872 it was still played at certain German watering-places, and it is still played at Monaco.

ROUNDHEADS, *round'-heds*.—A name given to the Puritans in England during the time of the civil wars, because they wore their hair cut close; but it was afterwards applied to the whole republican party. The Cavaliers, or royal party, wore their hair in long ribbons.

ROUND-ROBIN, (Fr., *round ruban*).—A written petition, memorial, or remonstrance, signed by names in a ring or circle, so as not to show who signed it first. The phrase is also sometimes used to signify an act by which a certain number of persons bind themselves to pursue a certain line of conduct.

ROUND TABLE.—According to tradition, there reigned in Britain, towards the end of the 5th century, a Christian king, the British Uther-Pendragon, who had for a counsellor a powerful, wise, and benevolent enchanter, named Merlin, who advised him to assemble all his knights distinguished for piety, courage, and fidelity towards him, at feasts about a round table, which should be sufficiently large to receive fifty knights, but at which at first only forty-nine should be seated, room being left for one yet unborn. This was Arthur, or Artus, son of the king by Igerna, whom the king, by the magic power of Merlin,

was permitted to enjoy under the form of her husband. Merlin had exacted a promise that the education of the prince should be intrusted to him; and he accordingly instructed him in everything becoming a brave, virtuous, and accomplished knight. Arthur in due time occupied the empty seat at the round table, and under him it became the resort of all valiant, pious, and noble knights, admission to it becoming the reward of the greatest virtues and feats of arms. According to another account, Arthur himself established the round table at York. In the year 1344, Edward III., anxious to attract around him the most noble knights from all parts of Europe, proclaimed, as well in Scotland, France, Germany, Hainault, Spain, and other foreign countries, as in England, that he designed to revive the round table of King Arthur, offering free conduct and courteous reception to all who might be disposed to attend the splendid jousts to be held upon that occasion at Windsor Castle. This solemn festival, which Edward proposed to hold annually, excited the jealousy of Philip de Valois, king of France, who not only prohibited his subjects to attend it, but proclaimed an opposition round table to be held by himself in Paris. In consequence of this interference, the festival of Edward lost some part of its celebrity and splendour; and this induced the English monarch to establish the memorable order of the Garter.

ROUND TOWERS, ANCIENT.—Numbers of these still exist in Ireland, and a less number in Scotland. They have been the subjects of endless discussion among antiquaries. They are probably among the earliest specimens of ancient ecclesiastical architecture now existing in the British Isles. Only about 18 or 20 are now entire in Ireland, though there are nearly 100 others. For full particulars, the reader is referred to Dr. George Petrie's "Ecclesiastical Architecture of Ireland."

ROWING, *ro'-ing* (Sax., *rowan*, *reowan*, to row).—May be defined as the propulsion of a boat through the water by means of sculls or oars, the water being the fulcrum, the rowlock the weight to be moved, and the hand giving the power. Rowing, as befits a nation whose ancestors were water-bred, is one of the most popular of English sports. Annually, a couple of crews, one from each of the universities of Oxford and Cambridge, contend for the palm of superiority on the Thames. These crews are formed of the most skilful oarsmen the universities can produce. Every year there is held at Putney the Royal Thames National Regatta, and at Henley the Royal Regatta, at both of which prizes amounting to several hundred pounds are contended for by watermen and amateurs. The gentlemen residing in the metropolis and upon the banks of the Thames enrol themselves, in great numbers, in clubs established for practising rowing as an art. The scholars at Westminster and Eton are taught to handle an oar, and the "Wingfield Sculls," carrying with it the amateur championship of the Thames, is held to be a prize worth contending for by some of the best and most spirited gentlemen athletes of the day. The championship of the Thames is an honour eagerly sought after by the best watermen in the United Kingdom. Wherever throughout England there is water accommodation, there, as a rule, is rowing practised as an English sport.

ROXBURGH CLUB, *roks'-burc*.—A club which took its name from that of a celebrated bibliomani, John, third Duke of Roxburgh. He possessed a library of 9,353 works, particularly rich in old romances of chivalry and early English poetry, which was sold by public auction in London in 1812. The prices paid for some works were enormous. A copy of the first edition of Boccaccio (Venice, 1471, folio) was bought by the Marquis of Blandford (Duke of Marlborough) for £2,260; and a copy of the first edition of Shakespeare (1623, folio) for 100 guineas. The Roxburgh Club, formed in commemoration of this triumph of bibliomania, celebrated its anniversary on the 17th of June, the day on which the Boccaccio had been sold. One of the members was required every year to be at the expense of the impression of some rare book, of which only copies enough for the club were struck off.

ROYAL ACADEMY OF ARTS, *roy'-al*.—A corporation instituted in London in 1768, by George III., for the advancement and cultivation of drawing, painting, engraving, sculpture, modelling, and architecture. The first president was Sir Joshua Reynolds. It was originally established in Somerset House, but was in 1838 removed to Trafalgar Square, the apartments comprising the whole of the east wing of the National Gallery being given to it in 1836. In 1869, it removed to its new building in Bowling House, Piccadilly. The Royal Academy consists of forty academicians—painters, sculptors, and architects. There are also twenty associates, forming a second order of members, from whom alone are supplied the vacancies among the academicians. In order to make the election of an academician valid, the approbation and signature of the queen is necessary. Besides these two classes, there are six associate engravers, and a treasurer, a librarian, a keeper, and a secretary, all of whom are academicians. There are four professors, who read lectures on painting, sculpture, architecture, and perspective; and a professor of anatomy. There are three schools—a school for study from casts from celebrated antique works, a school for study from living models, and a painting school. There are also several honorary members of the Royal Academy, including a professor of ancient history, a professor of ancient literature, a chaplain, an antiquary, and a secretary for foreign correspondence. The other academies of Europe which have been established for the advancement of the fine arts are altogether supported at the expense of their respective governments; as, for example, the Academy of Paris, founded about a century before the Royal Academy. The latter institution is essentially different from all others, as it originated in the munificence of the reigning monarch, and since the first few years of its existence has been entirely supported by the proceeds of an annual exhibition. The National Gallery, in which the Royal Academy was formerly situated, first originated in the collection formed by Mr. Angerstein, and purchased by order of George IV., as the foundation of a national collection. Amongst other pictures, it contains the "Vision of a Knight," by Raffaello; "the Raising of Lazarus," by Sebastian del Piombo; "the Woman taken in Adultery," by Rembrandt; and several beautiful specimens of Cuypp, Vandyck, Annibal Carracci, Claude, Poussin, Rubens, Titian, Domenichino, Correggio, and others. Additions are made to the

paintings from time to time. The Royal Academy is now situated at Burlington House, a magnificent building in Piccadilly, where its annual exhibition of pictures takes place every summer commencing at the beginning of May. Of recent years, exhibitions of pictures by old masters have been given during the winter months. The present president is Sir Frederick Leighton.

ROYAL ACADEMY OF MUSIC.—Established in 1823, mainly by the efforts of the Earl of Westmoreland, then Lord Burgherst. It was incorporated by charter in 1830, and in 1867 was reconstructed. Its first concert was given 8th December, 1828.

ROYAL INSTITUTION (LONDON).—A corporation founded in 1800 by Count Rumford. It was destined primarily for the promotion of original discovery, and secondly for the diffusion of a taste for science amongst the educated classes. The plan of the institution was conceived with the sagacity which characterized Rumford; and its success has been greater than could have been anticipated. Sir Humphry Davy was there first brought into notice; and he and Mr. Faraday have given to the institution a celebrity which has continued without intermission for more than half a century. The Royal Institution is situated in Albemarle Street. It has a very fair library, and the current periodical literature of the day, for the use of the members.

ROYAL SOCIETY OF LONDON.—A society incorporated by Charles II. in 1622-3, under the title of "The President, Council, and Fellows of the Royal Society of London for promoting Natural Knowledge." From the time of the charter being granted, the business of the society assumed much importance, and in 1664 Mr. Hooke was elected curator, with a salary of £80 a year. The first number of the "Philosophical Transactions," as the work which the society published was called, appeared in March 1665. Originally the Council met at Gresham House, and continued to prosper till about 1673, when it fell off in numbers. At that time, in order to encourage the society, lectures illustrated by experiments were given. In pursuance of this plan, the first lecture was delivered by Sir William Petty, in 1674. At present every candidate for admission into the society must be recommended by a certificate in writing signed by six or more fellows, of whom three at least must certify that the recommendation is from personal knowledge; and the name, qualifications, &c., of the candidate must be entered in a book kept for the purpose.

RUNES, *roons* (Gothic).—Are the letters of the ancient Goths, Danes, and other northern nations. The word *rune* is said by some authorities to be derived from a word in the ancient Gothic language, signifying *to cut*, whilst others assert that it is derived from either *rȳn*, a furrow, or *ren*, a gutter or channel; and others, again, derive it from *rannan*, to whisper. The time when this alphabet began to be used is only matter of conjecture; and while some have advanced the opinion that Runic characters were used by the Germanic nations long before the Christian era, others suppose that they were the invention of a much later age. The alphabet consisted of only sixteen letters, and the fact that some of them bear a great similarity to the

Greek and Roman characters, supports the opinion entertained by some philologists, that this alphabet was originally introduced among the inhabitants of the coasts of the Baltic by Phœnician merchants, and that, with some modifications, it was kept a secret by their priests, and applied to various magic purposes. The Runic characters are found cut on stones, which were either sepulchral monuments or landmarks, and which are frequently met with in all countries inhabited by nations of the Teutonic race during the fourth and fifth centuries of our era. All Runic characters are divided into three great classes:—1. the Northern or Scandinavian; 2. the German, in the limited sense of the word; 3. the Anglo-Saxon: the second being, it is supposed, a modification of the first, and the third a modification of the second. In Scandinavia, Runes seem to have been in use earlier than in other countries, and were written there as late as the middle of the 15th century. Runic characters consist almost entirely of straight lines in the shape of little sticks, either single or put together; and as such sticks were in early times used by the Germans for the purpose of ascertaining future events, it is at least very probable that the alphabet was derived from that practice.

RUSSIAN LANGUAGE AND LITERATURE.—The Russian language belongs to the great Slavic family, and it first became a written language in the time of Peter the Great. Its chief characteristics are simplicity and naturalness. The conquest by the Mongols and the Polish elements in the western part of the immense empire caused the introduction of a great number of Polish and Mongolian expressions, and there are also a number of other words more particularly relating to the arts and various industries, which have been introduced from France and Germany, &c., as western culture has been spread. There are no auxiliary verbs or articles, and but few conjunctions, while the personal

pronouns may or may not be used. Clearness and expressiveness are obtained by the freedom permitted in placing words. The best Russian is spoken in and around Moscow. Russian literature had its commencement at the time when Christianity was introduced by Cyril and Method, who used the old Slavic church-tongue. About this period appeared the history of Nestorius, and also the *Pravda Ruskaja*. During the time of the domination of the Mongols, literature was confined chiefly to the monasteries. Some patriotic ballads and songs were produced, however. After the Mongols were driven away, Russian literature increased. A Slavic grammar was produced (1596), and fifty years later Matviejev, the then Prime Minister, caused a valuable collection of laws to be printed, and founded an academy at Moscow. Peter the Great did much for Russian language and literature. He founded the St. Petersburg Academy and established schools. The national historian, Tatishshev, lived 1686-1750, and also the poet, Kantemir. But Somonossov, who lived after Peter the Great, first sharply distinguished between Old Slavic and Russian, and established the latter for literary purposes. Alexander I. greatly encouraged literature and learning. The number of universities and learned societies were increased, and various poets and writers arose. It was not long after this that Poutchskin or Putshkin, one of the most brilliant of Russian poets, came forward. His writings form a perfect mirror of Russian life at that time, and show forth all the joys and griefs of the true Russian. Since then a number of other writers have arisen, among whom may be mentioned Gogol, Sagoskin and Solohub.

Russniaks, Russine, or Rutheni.—A branch of the great Slavic race, whose language is much like the Polish.

RUSTRE, rus'-ter.—In Heraldry, a lozenge with a circle pierced in its centre. (See LOZENGE.)

S.

S, es.—The nineteenth letter and fifteenth consonant of the English alphabet. It is the chief sibilant, or hissing letter, being sounded by forcing the breath through a narrow passage formed between the palate and the tongue elevated near it, while at the same time the lower jaw and teeth are brought towards the upper jaw. Hence, from the tongue being essential to its pronunciation, it has sometimes been reckoned among the linguals; and as the teeth co-operate in producing the hissing sound, it has sometimes been classed among the dentals. It is also one of the semivowels, as it can be pronounced without the assistance of a vowel. It has two sounds, a hard and a soft; as in *this, these*. It is generally doubled at the end of words, giving them a hard and sharp sound, as *loss, kiss*. In some words it is silent, as *island, viscous*. It frequently interchanges with other letters, more particularly with *d, th, t, z, sh, c, g, h, n, and r*, and *ks* with *g*. *Sp* is also interchangeable with *ps, sk* and *ks*, and *sd* with *ds*. *S* is often dropped; of which numerous examples are to be found in the French language, as *Aisne* or *Aine*. It often appears before an initial consonant, where it is doubtful

whether the older form be with or without the *s*, as *melt, smelt*; *tumble, stumble*. Among the Greeks, *s*, with a mark over it, stood for 200, with a mark under it, for 200,000. (See ABBREVIATIONS.)

SABLE, say'-ble.—In Heraldry, black colour, and represented in engravings by horizontal and perpendicular crossed lines.

SABRE, say'-ber.—A heavy sword with a thick back, and usually curved at the point like a scimitar. Dragoons are usually armed with sabres.

Sabre-tache.—A sort of pocket for dispatches, and suspended from the sword-belt by smaller belts; hence the name which is from the German *Säbeltasche*, sword-pocket.

SACKBUT, sak'-but.—A musical instrument like the Trombone. (See TROMBONE.)

SACRED MUSIC. (See MUSIC, ORATORIO.)

SAGA, sa'-ga (old Norse, a saying, report, tradition).—Is the name given to those ancient

Norse historical and mythological compositions which have come down to us. The sagas were the prose recitations of the Sagamen, as the poems and lyrics were of the Scalds. The historical of them treat principally of the history of Norway from the 9th to the 13th century. Many of them are collected in the celebrated *Heimskringla*, by Snorre Sturleson (which see; also NORWEGIAN LANGUAGE AND LITERATURE.)

SAHIB, *sa-hib* (Arabic, master, lord).—In Hindostani is a term answering to the English Mr., sir, &c. It is the usual designation of a respectable European in India.

Sahiba.—The Hindostani equivalent for madame, lady.

SALUTATION, *sal-u-tai'-shun* (Lat., *salutatio*, from *salus*, safety).—The act or ceremony of saluting or paying respect or reverence to any one. Among the Romans, *salutatio* was the daily homage paid by clients and dependents to their superiors. The women, too, had their crowds of saluters attending them every morning. In the reception of those who came to pay their respects, the better sort were honoured with a kiss, the poorer had a small entertainment set before them, and were even feasted by those who wished to be thought very liberal. It is not a little interesting to observe the different modes of salutation that prevail in different countries. In most civilized countries, bowing, uncovering the head, pressing the hand, embracing, and kissing, are the usual modes in which good-will, esteem, and love, are expressed; but not unfrequently what is regarded as an act of civility in one country would be out of place, or even considered as rude, in another. In some parts of Germany, it is considered an act of politeness to kiss the hands of ladies; in Italy, this is a familiarity only permitted to nearest relatives. In the East, the salutations are generally of a very slavish character; as the throwing oneself on the ground before persons of distinction, and repeatedly kissing their feet. In Sumatra, the saluting person bows, begs the left foot of him whom he addresses, kneels on the ground, and applies this foot to the crown of his head, forehead, breast, and knee; finally, he touches the ground with his head, and remains for some moments stretched out on his belly. In the Pelew Islands, a person seizes the hand or foot of him whom he wishes to salute, and rubs his face with it. In the Philippines, they bend their body very low, place their hands upon their cheeks, raise one leg, and bend the knee. In Siam, the inferior throws himself on the ground before his superior. In Japan, the inferior takes off his sandals, puts his hands into the opposite sleeves, bends slowly, till they reach his knees, and thus with short and measured steps, and with a rocking motion, passes his superior crying, "Do not hurt me." In China, the forms of salutation are various. The Turk crosses his hands, places them upon his breast, and bows; the Laplanders rub noses; the Franks are said to have pulled out a hair, and presented it to the person saluted; an Ethiopian takes the robe of another and ties it about his own waist, leaving his friend half naked. In some parts, they show their humility by presenting themselves naked before the person whom they salute; in others, they scratch the hand slightly, and reciprocally suck a drop of blood from the wound, or, as a peculiar mark of esteem, they open a

vein and present a goblet of blood as a beverage for their friend. The Baron von Secken, when travelling in Africa, was obliged, in order to gain the friendship of one of the chiefs, to propose and perform the ceremony of drinking blood with him. Several negro nations take each other's hands and pull the fingers till they crack.

SANKHYA.—One of the three great systems of Hindoo philosophy. (See HINDOOS, LITERATURE OF THE.)

SANSKRIT LANGUAGE AND LITERATURE. (See HINDOOS, LITERATURE OF THE, and HINDOSTAN, LANGUAGES OF.)

SANS CULOTTES, *son(g) ku-lot'* (Fr., without breeches).—Was a term first applied in derision by the aristocrats to the popular party in France at the beginning of the Revolution of 1789; and, as in several cases of a like kind, it came afterwards to be regarded by them as a title of honour. In the Republican calendar, the five supernumerary days (each month having only 30 days, and therefore making 360 in the twelve) were at first called *jours sans-culottides*.

SAPPHIC, *sa'-fik*.—Is the name given to a species of Greek verse, after the celebrated poetess Sappho, by whom it is said to have been invented. It consists of eleven syllables, or five feet; the first being a trochee, the second a spondee, the third a dactyl, and the two last trochees; as follows:—

Grāndī | nis mī | sit pātēr | ēt rū | bēntē

This measure was afterwards introduced into Latin, and received great improvements at the hands of Horace and Catullus.

SARABAND, OR SARABANDE, *sar'-a-band*.—A dance in slow time, said to be of Saracenic origin; hence, any piece of music, of slow time ($\frac{3}{4}$) and peculiar rhythm, the accent being placed on the second crotchet, is called a Saraband.

SARACENIC ARCHITECTURE. (See ARABESQUE, ARABIAN ARCHITECTURE.)

SARCOPHAGUS, *sar'-kof'-a-gus*, (Gr., *sarx*, flesh; *phago*, I eat).—A term which originally signified a species of limestone found in the neighbourhood of Assos, in Mysia, which had, according to Pliny, the property of destroying within forty days the corpses put into it, so that nothing remained entire except the teeth: hence the name. On account of this quality, the stone began to be much used for coffins, and finally the term began to be applied to all coffins made of stone, though often used for a contrary purpose to that which the word expresses. Among the earliest sarcophagi is the Egyptian, called *teba* or chest in the hieroglyphics, and found from the time of the pyramids to the year 100 A.D. The earliest form is that of a square stone chest, either plain or simply ornamented with two lotus leaves. Those of the 18th and subsequent dynasties were of different shapes, the most ordinary being that of a mummy swathed, dividing into two parts longitudinally, the cover being formed by the front, and the chest by the back, of the figure. The stone used at this period was generally red granite, and the exterior of the coffin was ornamented with descriptions of scenes relating to the myth of Osiris, or the passage of the sun through the regions of night and darkness. During the 26th dynasty, the sarcophagi were usually made of basalt; but

coarse red granite and black and white marble were occasionally employed. The hieroglyphics of this period are frequently chapters transcribed from the ritual of the dead. The coffin of Nectanebes I., in the British Museum, is the last of the royal sarcophagi. It is made of a fine breccia, and sculptured with scenes of the passage of the sun. This sarcophagus was formerly at Alexandria, and for a long time was believed, on insufficient grounds, to be the tomb of Alexander the Great. Many sarcophagi have been founded in Asiatic and European Greece, but very few of earlier date than the Roman empire, and generally of the 1st and 2nd centuries A.D. The remains of Christian sarcophagi have been found, many of them sculptured with scenes taken from the Old and New Testaments.

SARDONYX.—In Heraldry, the murrey colour in the coat of noblemen.

SATIRE, *sat'-ire* (Lat., *satira*).—In Literature, is the representation of follies or vices in a ridiculous form, either in discourse or dramatic action. The Romans were the first to distinguish themselves in this species of literature. The Romans' satire was at first a kind of rude dramatic composition, filled with various matter and written in various kinds of verse, and took its name of *satura*, or *satira*, from the *lanx satura*, a dish filled with various kinds of fruits and herbs, which was carried in procession at the feasts of Ceres as the first-fruits or gatherings of the season. These satires were set to music and repeated with suitable gestures, accompanied with the flute and dancing. They contained much ridicule and smart repartee; and hence poems characterized by these marks, and written to expose vice, got the name of satires. Lucilius was regarded by the Romans as the father of this species of composition, and was the first to introduce those principles of art which came afterwards to be regarded as essential to it. His poems formed the models of the satires of Horace, the great master in this art, and whose humorous and playful railery of the follies and foibles of mankind are ever fresh and ever true. He repines with a smiling aspect, and while he moralizes like a philosopher, he discovers at the same time all the politeness of a courtier. Juvenal is much more serious and declamatory. He has more strength and fire, and more elevation of style than Horace, but is at the same time greatly inferior to him in gracefulness and ease. Persius, the only other satirist of note whose works have come down to us, is a nervous and lively writer; but has more of the fire and force of Juvenal than of the politeness of Horace. Though the name satire usually is confined to poetical compositions, prose works of a satirical character are frequently included under the same head. Modern nations have not generally furnished many distinguished satirists. Among the French may be mentioned Rabelais, Montaigne, and Voltaire, and in this country, Swift, Fielding, and Thackeray, and the "English Bards and Scotch Reviewers" of Lord Byron.

SATRAP, *sat'-trap*.—The governor of a province in the ancient Persian Empire. So long as he remained in the king's favour, he could do as he pleased, and was almost absolute.

SATURDAY, *sat'-ur-dai* (Lat., *dies Saturni*). is the seventh day of the week, and receives its

name from being dedicated by the Romans to Saturn. It is the Sabbath of the Jews.

SATURNIAN VERSE.—The verse in which the oldest Roman poems were written.

SATYRS, *sat'-ers*.—In Greek mythology, woodland deities with grotesque and repulsive forms, and extremely wanton in character.

SAX-HORN, *saks'-horn*.—A brass instrument, invented by Mr. A. A. J. Sax, constructed in such a manner that the large portion, after passing under the arm of the performer, repasses over his shoulder, presenting the bell to the front. The advantage of this shape is that it avoids the elbows, which would otherwise impair the progress of the sound. They have great power, more especially the *contra-bassos* in E and B flat; the latter of which has *forty-eight* feet of development in its tube.

SCALDS, or **SKALDS**, *skavlds*.—Were the poets of the ancient Scandinavian race. They were the companions and chroniclers of their kings and princes, attended them on their martial expeditions, and resided at their courts in times of peace. They sang the praises of the gods and the exploits of their mighty men. They were often richly rewarded for their songs, and sometimes even permitted to marry the daughters of princes. A sacred character was also attached to them, and they performed the office of ambassadors between hostile tribes. (See NORWEGIAN LANGUAGE AND LITERATURE.)

SCALE, *skail* (Lat., *scala*).—In Music, is a series of sounds rising or falling from any given pitch or tone to the greatest possible distance through such intermediate degrees as make the succession most agreeable and perfect, and which contains all the harmonical divisions most commodiously divided. "The scale," says Dr. Busby, "may be simple, as comprising only the notes of one octave, or compound, as embracing a series of octaves. Taken in the former sense, it presents a limited course of contiguous degrees of different dimensions, as tones and semitones; received in the latter sense, it implies a series of equal degrees, consisting of equal degrees or semitones, and bounded only by the powers of instrumental expression. Again, in its former sense, the scale signifies a measured course of tones and semitones, taken in certain order, as that order which constitutes the *major mode*, or that which forms the *minor mode*; but in its latter sense, it neither has nor requires any diversified arrangement whatever. The modern scale, consisting as it does of an enumeration of all the diatonic sounds of our system, arranged in order, is very properly termed the *universal system*, in the same manner as the Greeks combined their three scales (*viz.*, the Diatonic, Chromatic, and Enharmonic, each consisting of four sounds only) under the name of *Tetrachord*. (See MUSIC.)

SCALLOP, *skallop*.—In Heraldry, a species of shell, usually regarded as the badge of the pilgrim. It is also frequently called *ESCALLOP* (which see).

Scallop Shell. (See PECTEN.)

SCANDINAVIAN MYTHOLOGY, *skan-din-ai'-ve-an*.—The Scandinavian mythology, in the form in which we possess it, is the work of those northern minstrels of Denmark, Sweden, Norway, and Iceland, called *Scalds*. It is characterized by wild imagination. Some

of its features are : that there were originally no heavens above or earth below, but only a bottomless deep and a world of mist, in which flowed Hwergelmer, the fountain that strove to devour everything. Twelve rivers issued from this fountain, and flowed so far from their source as to stop and become frozen into ice, until one layer accumulating above another, the great deep was filled up. Subsequently, Ymir, the ice-giant, was created. Descended from Bure, another ice-giant, were Odin, Wile, and Ve, who became the rulers of heaven and earth. The creation of seas and rivers, rocks and stones, and the clouds, are each described, the whole cosmogony being stamped with a northern view of nature. The chief god is Odin; he is the first and oldest of all, and lives for ever. From him and his wife Frigga are descended the gods, on which account he is called Alfader (Father of all). Their sons are Thor, god of thunder, the symbol of physical strength, the strongest of gods and mortals, whose hammer crushes the hardest objects, and Balder, the youthful and beautiful god of eloquence. Iduna is the wife of Braga, a son of Thor. She preserves the apples of immortality, which she presents in vessels of gold to the heroes at their entrance into Valhalla. The residence of the gods is Asgard, where there are twelve heavenly palaces of such extraordinary splendour that the light of the sun and moon is unnecessary. Asgard is protected by an abyss spanned by the bridge Bifrost, formed of water, air, and fire, and strong enough to bear the weight of the gods, but which will break under the weight of the giants. In the centre of Asgard, in the valley of Ida, is the place where the gods administer justice. Gladheim, the hall of joy; Wingolf, the palace of friendship and love; and Glas, or the golden forest, are here situated. Valhalla is a separate palace, with groves and beautiful environs; it is the dwelling of heroes who have fallen in battle. Here life is passed in war and revelry; but all wounds received in the fray are healed as soon as the trumpet sounds for the feast. Opposed to Asgard is Niflheim, whence will come the wicked Loke, superhuman son of the giant Forbaute. From him come the wolf Fenris and the terrible serpent Jormungandu, which surrounds the whole earth. The powers of destruction that will issue from Niflheim will bring about the end of the world, which will be destroyed by cold, snow, bloody wars, ultimately falling into the jaws of Fenris. At the same time Asgard is to be stormed by the giants. The gods will all perish, even the all-powerful Odin and the mighty Thor. A new sun will then shine upon the earth, and Lift and Liftrasor, a human pair, who have escaped destruction, and have been nourished on morning dew, will perpetuate the human race. (See EDDA, HEIMSKRINGLA, NORWEGIAN LANGUAGE AND LITERATURE.)

SCANNING, *skan'-ning*.—In Poetry, is the measuring a verse by feet, in order to see whether the quantities be duly observed. Thus a hexameter verse is scanned by reducing it into six feet, a pentameter into five, and so on. It is chiefly used in regard to Greek and Latin verses.

SCENERY, *see-ne-re*.—Is a term applied to the decorations of the stage of a theatre, by means of which the different places in which the action is supposed to go on are represented. In the theatres of the ancients there was no change of scene, the walls of the stage being painted some

quiet colour, with the most simple forms of decoration. The theatres established in Europe had at first no side walls, and were not provided with movable scenery. When the mysteries were represented on the stage, the actors all took their seats on benches ranged along the sides. When called upon to make his appearance in the piece, the actor rose from his seat, and took it again at his exit. At a later period, the representation of a tragedy was indicated by black hangings round the stage, and the changes of the scene were shown by simply fixing up inscriptions, upon which was written the name of the place represented in the action of the piece. This was the mode adopted in Shakespeare's time, and, indeed, till the invention of the Italian architect, Serlio, reached England. Serlio first placed movable scenes on the sides and back of a stage, so as to leave intervals between them, affording them a free passage. Garrick introduced from France an improved mode of lighting the stage. Scene-painting is conducted chiefly in water-colours. At the present day, so great has been the advance made in this department of art—the very beautiful scenery presented by Mr. Henry Irving at the Lyceum Theatre may be mentioned as one of the most notable instances—that exceedingly beautiful and striking effects are to be witnessed. In 1880, the system of lighting the theatre and stage by electricity was adopted by Mr. D'Oyly Carte at the Savoy Theatre.

SCEPTRE, *sep'-tr* (Gr., *skeptron*, a staff).—Is a staff or rod used by princes and others as an emblem of sovereign or judicial power. It is said to have been originally a simple staff, used as a support for the aged and infirm; and hence it came to be an emblem of experience, wisdom, and authority. Among the ancient Greeks, the sceptre was not only borne by kings, princes, and leaders of the people, but likewise by judges, heralds, priests, &c. It thus came to be a highly emblematic, and was likewise made a very ornamental, instrument. The Roman kings and consuls bore an ivory sceptre, and their deities Jupiter and Juno were likewise represented with sceptres, to denote their authority over the rest. Through the Roman emperors the sceptre passed to the western monarchs, and it now forms one of the chief insignia of sovereign power.

SCHERZO, *sker'-zo*.—In Music, a name given to a passage of a lively and sportive character.

SCHOLARSHIP, *skol'-ar-ship*.—A gift to a student for his maintenance at a college or university. The gift is usually the annual proceeds of a bequest which has been permanently invested. A number of these have recently been thrown open to public competition. (See the various universities.)

SCHOLASTICS, OR **SCHOOLMEN**, *sko-las'-tiks* (Gr., *scholastikos*).—This name was originally given to the teachers of rhetoric in the public Roman schools, but is now almost exclusively given to a class of philosophers who flourished in the Middle Ages, and taught a peculiar kind of philosophy, which consisted in applying the ancient dialectics to theology. "The scholastic theology," says Mr. Hallam, "was in its general principle an alliance between faith and reason; an endeavour to arrange the orthodox system of the Church, such as authority had made it, according to the rules and methods

of the Aristotelian dialectics, and sometimes upon premises supplied by metaphysical reasoning; and scholastic philosophy "seems chiefly to be distinguished from this theology by a larger infusion of metaphysical reasoning, or by its occasional inquiries into subjects not immediately related to revealed articles of faith." The name is derived from the circumstance that it originated in the schools instituted by and after Charlemagne for the education of the clergy. It probably arose from the necessity felt of combating heretics with their own weapons, and establishing the doctrines of the Church upon a rational and scientific basis. The founder of the system is generally regarded to have been Scotus Erigena, a native of Ireland, who flourished in the 9th century. The first era of its history is considered to come down to Roscellinus, in 1089, or the contest of the Realists and Nominalists (which see); the second to Albertus Magnus, who died in 1280, when the metaphysical works of Aristotle were more generally known and commented on; and the third to the revival of learning in the middle of the 15th century, and the consequent improvement in philosophy. Among the most distinguished Scholastics, besides those already mentioned, were Abelard, Thomas Aquinas, Duns Scotus, and William of Ockham.

SCHOLIA, *sko'-le-a* (Lat.).—Notes and explanations annexed to Greek and Latin authors by the early grammarians or critics, who are hence called scholiasts.

SCHOOL, *skool*.—Is formed from the Latin, *schola*, which, according to Du Cange, signifies discipline and correction, and was anciently, he says, used in general for all places where several persons met together either to study, to converse, or do any other matter. Formerly the word school was used in a larger acceptation than at present, and signified places of instruction, not only for children, but for those of more advanced age. It was applied generally to what are now called universities. Thus Shakespeare, in *Hamlet*, speaks of being at school at Wittenberg—that is, at the university.

History.—The school is one of the institutions of civilized life. In early times, and among rude races, education and instruction are matters of domestic concern. Among the ancient Jews, parents were strictly enjoined to instruct their children in the precepts of the law, the fear of God, and in the history of the people. That reading and writing constituted a part of their education may be inferred from their being instructed to write the precepts of the law upon their door-posts, so that they might be read by all. Schools were not established among them until after their return from the Babylonish captivity, when Ezra, their language and law being in great measure forgotten, gathered round him learned persons and trained a number of public teachers, some of whom were established in Jerusalem, and others sent into the provincial towns of the country. Schools were first instituted for educating the higher classes of society; the great mass of the people were left to ignorance, or what of instruction their parents could impart. In particular this seems to have been the case in ancient Egypt, Persia, &c. In Greece, private schools for instructing in reading, writing, and arithmetic, were established as early as 500 B.C.; and afterwards young persons, eager for knowledge, resorted to the instructions of the philosophers and sophists; but still the great mass of the people remained in ignorance. The same was the case with the Romans, who, from 300 B.C., had schools for boys in the cities; and from the age of Cæsar, who conferred the rights of citizenship on teachers, the higher institutions of the grammarians. The Emperor Vespasian was the first who established public professorships of grammar and rhetoric with

fixed salaries attached to them, for the education of young men for the public service; and in A.D. 150, Antoninus Pius founded imperial schools in the larger cities of the Roman empire. There was still, however, no general system of education. With the diffusion of Christianity, the importance of education came to be seen in a new light. Schools were instituted in the cities and villages for catechumens, and in some capitals, catechetical schools for the education of clergymen, of which that in Alexandria was the most flourishing from the 2nd to the 4th century. From the 5th century, however, these higher establishments seem to have been discontinued, and the episcopal or cathedral schools to have taken their place, in which the young men intended for the clerical profession learned, besides theology, the seven liberal arts: viz., grammar, logic, rhetoric (the *trivium*), arithmetic, geometry, astronomy, music (the *quadrivium*). The imperial schools declined, and finally became extinct in the confusion which followed the irruptions of the barbarians, and cathedral and parochial schools for boys and young men of all classes were established in the cities, in which the learning of reading and writing was followed by the *trivium*, and which hence received the name of trivial schools. The conventual schools began to be established in the 6th century, and from being at first intended only to prepare persons for the monastic life, they came to be resorted to by laymen, and at length became very famous. It is one of the noblest traits in the character of Charlemagne, that in that age of gross ignorance he laboured with zeal for the instruction of the people under his sway. He decreed (780) that not only every bishop's see and every convent, but that every parish was to have its school; the two former for the instruction of clergymen and public officers, the latter for the lower classes of the people. At his court he established an academy of distinguished scholars, to whom he himself resorted for instruction, and whom he employed to educate his children and capable boys belonging to the nobility. Charlemagne's decrees were forgotten during the disputes of his grandsons about the government, under whom, also, the court school was abandoned. In the 12th and 13th centuries, the inactivity and luxury of the clergy led to the neglect of the cathedral and conventual schools, and they rapidly declined. But at length, with the increasing power of the cities, the citizens became more independent, and the magistrates began to take care of the instruction of youth, which was being so much neglected by the clergy. They established schools, in which reading, writing, and the *trivium* were taught, and itinerant monks and students were employed as teachers. It was the commencement of a new system. The teachers, though, indeed, still belonging to the clerical order, now formed a separate class. They were, however, generally ignorant, frequently immoral, and wandered about from place to place. From the 14th to the 16th centuries, Germany was overrun with bands of these vagrants, who, as Luther says, though they had hardly seen a university, received appointments as teachers, because they were generally the only persons who could be hired as schoolmasters, since the more learned youths were ambitious of clerical benefices and academical professorships. The Reformation in the 16th century exercised a most decided and beneficial effect upon the schools, more particularly in Germany. The property of the convents and of the Church in general, which had been confiscated by the governments, was in most cases applied to the use of schools, the number of which was now very much increased, their character elevated, and a higher class of teachers established in them. The corporations of cities founded gymnasia and lyceums with permanent teachers; schools for girls were also founded, and in the villages instructors were appointed to teach the catechism. Soon after this, the rise of the Jesuits, and their devotion to education, effected a great improvement on the old Catholic system. In this country there were many schools connected with religious foundations, and also many private endowments for education. Immediately after the Reformation, a number of new schools were established, more particularly by Edward VI., out of the tithes that formerly belonged to religious houses or chantry lands, and which are now commonly known as King Edward's schools. A large proportion of the grammar-schools were founded in the reigns of

Edward VI. and Elizabeth; and since that time comparatively few have been founded, while the number of endowed schools has largely increased. It was only, however, towards the close of the last century that any special efforts came to be made for the education of the mass of the people. The first Sunday-school was established by Mr. Raikes, of Gloucester, in 1781, and the popular day-school dates from 1796, when the youthful Quaker, Joseph Lancaster, began, in his father's house in Southwark, to instruct the children of the poor. In 1792, Dr. Bell, superintendent of the Military Orphan School, Madras, introduced the monitorial system, or the plan of making the elder children in a school teach the younger; and four years later, on his return to this country, he warmly urged the adoption of the system, as the most effectual means of rapidly extending popular instruction. The efforts of Lancaster led to the formation of "the British and Foreign School Society" in 1808, and of Bell to the establishment of "the National Society for promoting the Education of the Poor in the Principles of the Established Church." The work of education now advanced with some rapidity, and conspicuous among those who laboured in the cause of its popularization was Lord Brougham. Up to 1833, the whole of what had been accomplished in the work of popular education was the fruit of private liberality, incited mainly by religious zeal, and acting, in the matter of daily education, principally through the medium of these two societies, the British and Foreign and the National. From 1833 to 1839, an annual sum of £20,000 was voted by Parliament for educational purposes, and has since been increased from year to year, till in 1860 it amounted to £798,167 for Great Britain and £270,722 for Ireland. In 1870, the Elementary Education Act was passed, by which compulsory education was established and the grants to schools very much increased. (See EDUCATION, also SCHOOL BOARDS.)

Different kinds of Schools.—*Infant schools* are designed to receive children at the very earliest age at which they are capable of receiving any instruction, and imparting to them the elements of education, as well as training them in the practice of virtue and good feeling. They are of great utility as places of security as well as of education, and are particularly of use to those who are unable or unwilling to take proper care of their offspring. They have been found to be of great service to the humbler classes of society, and are slowly extending themselves among the middle ranks. It is asserted that if two children enter an elementary school at the age of seven, the one from an infant school, the other uneducated, the former will make as much progress by the age of ten as the latter by the age of twelve.

Ragged Schools are established for educating children of the very lowest class of society; they receive their instruction gratuitously, and are not required to be decently clothed. In 1844, when the "Ragged School Union" was established, there were only 16 ragged schools, with 2,000 children, and about 200 teachers (all voluntary). In 1860, the year before the London School Board began its labours, the average attendance was 32,000, while in 1882 it was 37,354, and the number of schools and mission buildings was 170. In many schools the children are fed as well as educated, and in some a limited number are both fed and lodged. In due time, efforts are made to get them suitably employed, and some of the best behaved and industrious of them are assisted to emigrate. (For REFORMATORIES, see that article.)

Industrial Schools have as their object to reclaim "children who, from the circumstances of their homes or from neglect, are in danger of becoming criminals; and this object is accomplished by separating them from their connections, and giving them instruction in some honest means of getting a living. In a few cases, the industrial instruction is given, though the separation of the child from his home is not enforced; but in most cases, the children are boarded and lodged as well as fed."

Endowed Schools are schools which have been established, and are supported by funds given and appropriated for that purpose, either by the sovereign or by private individuals. They afford a gratuitous, or nearly so, education to pupils either generally or such as live within certain defined limits, and are hence frequently also called free schools. A number of these are what are termed grammar-schools, or schools

where the elements of the Latin and Greek languages are taught. A number of the endowed schools are incorporated, and the lands and other property vested in the corporation; others are under trustees, whose duty it is to preserve the school property, and apply it to the purposes intended by the founder. The amount of money thus vested in endowed schools is so great that, if properly laid out, it would go far to establish a system of national education.

National Schools are such as have been established by the National Society for the promotion of education. Religious instruction is given according to the tenets of the Church of England.

British Schools have been founded by the British and Foreign School Society. No peculiar religious tenets are inculcated, the Bible, without note or comment, being the only religious school-book. Both have been the means of much good in diffusing education over the country, and at a very low rate. Up to 1859, the former society had expended on education £724,599, the latter £156,663.

Evening Schools were established with the view of extending the benefits of education to persons engaged in business during the day. From the advantages which might be expected to result from such institutions, it is not a little remarkable that they are not more common. It is indeed said that the previous toil unfits one for study; but a well-conducted school might easily make study so attractive as to be in truth a recreation.

Sunday Schools are primarily religious institutions; but reading is incidentally taught, or the habit of reading kept up in them, and in a few cases instruction in writing has been given. There are usually two school attendances each Sunday; one commencing about nine or half-past nine in the morning, the other about two in the afternoon; and upwards of 300,000 persons are engaged as teachers.

Schools, Normal. (See NORMAL SCHOOLS.)

Schools, Army. (See ARMY SCHOOLS.)

School Boards.—In the year 1870 Mr. Forster carried his Elementary Education Act through the House of Commons, notwithstanding a large and active opposition. The object of this act is to secure throughout England and Wales the provisions and appliances for the elementary education of the people. England and Wales are by this act divided into school districts, governed by a body of elected members called a School Board. Among other powers the school board may either provide schools themselves or assist the existing schools. (See EDUCATION.)

SCHOTTISCHE, *shot'-teesh*.—A name from the German, and meaning Scottish, applied to a modern dance in ¾ time.

SCIMITAR, *sim-i-tar*.—A kind of sword much used in the east. The blade is broader at the top than towards the handle, and it is considerably curved, the edge being on the outside of the curve.

SCORE, *skore*.—The original and entire draft of any composition in parts, in which all the parts are arranged upon staves one above the other, so as to present to the eye of a skilful musician the effect of the entire band during performance. The term score originated from a bar or line, which was formerly drawn through all the parts.

SCULL, SCULLING.—A scull is like an oar, but shorter and lighter. When a man is pulling two of these in a boat on a river, he is said to be sculling; but on the sea sculling is used to imply the working the boat forward with one oar, used over the stern like a screw.

SCULPTURE, *skulp'-tsher* (Lat., *sculptura*).—Strictly speaking, is the art of cutting or carving any material, so as to represent form. If taken in a broad acceptance, the term might be applied to gem-engraving, casting in metal or otherwise, modelling, and carving generally.

Sculpture may be broadly divided into *Relievo* and the *Round*. In the former, single figures or groups are represented as more or less raised, but without being entirely detached from a background. According to the latter method, insulabated figures, such as statues, or collections or groups, are made, so as to be entirely independent of a background.

Early History.—There are various opinions as to which is the more ancient of the arts—painting or sculpture. If we place credence in Pliny's story, as recorded in his *Natural History*, relating how the daughter of Dibutades formed the outline of her lover's profile from its shadow thrown upon a wall, an outline which was subsequently filled in with clay by the lady's father, we must allow that drawing is the older art. Indeed, it is more reasonable to suppose that the drawn design from which sculpture is worked must have been the prior process. It is clear, however, that attempts at forming the representation of natural forms by means of clay or other plastic substance must have been among the earliest efforts of man's ingenuity. Pliny and Pausanias both tell us that clay, stucco, wax, and plaster were employed by the ancients to form works in sculpture. Clay was used for architectural ornaments, figures, tiles, lamps, which, when baked, were called *terra-cotta*, or baked earth. For carved works, granite porphyry, basalt, ivory, bone, alabaster, and wood of many kinds were used. In short, nearly every material, hard or soft, was employed to perpetuate the memory of great events, or to do honour to the actions of heroes. Scattered through even the most ancient records, we may glean that men from the earliest times venerated blocks and carved stones. In the 23rd century B.C., Laban possessed images of his domestic gods (in Hebrew *teraphim*). Sculptured works have been found in the most ancient Hindoo cavern and grotto temples. It has been declared that the history of sculpture is almost the history of religion. In the inspired writings, the Israelites are repeatedly exhorted to turn away from the worship of images, the sculptured works of their own hands. The idols of Egypt, the monstrosities of Hindooism and of Buddhism, owe their origin to the superstition of the people of India, China, and of Egypt, striving as they did to give to sculptured forms the symbolical attributes of divinity. This superstitious feeling was the force that actuated those ancient sculptors to exhibit in the human form combined with the brute, the symbols of intelligence and strength. As to the Hindoos, although their fancy was exuberant, they never reached a standard of pure art. In the ruins of Persepolis there are many examples attesting to the fact that the Persians possessed many works of sculpture. Yet, as this ancient people never carried the resemblance of the human form, they never gained a just conception of the majesty of nude humanity. Sculpture flourished in Assyria. The researches of Messrs. Layard and Botta have stocked the museums of London and Paris with a number of colossal slabs, the dates of which range from the time of Sardanapalus, B.C. 930, to the destruction of Nineveh, B.C. 625. In these colossal emblems of the sculptured arts of a great and ancient people, we find human-headed winged bulls and lions, and representations of battles, sieges, and the chase. Probably because their creators were bound by rigid conventional rules, these slabs show a total ignorance of perspective, together with exaggerated and inaccurate drawing.

Egyptian Sculpture.—The Egyptians were the first who elevated sculpture almost to pure art. This ingenious, wealthy, and wise people, nevertheless, were never able to shake off a heavy uniformity and stiff ugliness which characterized all their works, and rendered them vastly inferior to the Greeks. This inferiority is held by some writers to arise from the want of beauty in the natives of Egypt; others declare that it was owing to the absence among this nation of any public games, where the human form in its proper development might be studied. The true cause would appear to be, that the Egyptian sculptors always wrought under the direction of the priests, who, according to Plato, never suffered them to innovate anything in their art, or to invent any new subjects or any new habits. Hence the art remained at a standstill—

the rules of it at a standstill. Stiff, limited action, drapery without folds, flat eyebrows, thick lips, and projecting eyeballs, are the prevailing characteristics in all Egyptian sculpture, albeit there is a peculiar sweetness of expression in many of their heads. A notable instance of this latter quality is exhibited in the head known as the Young Memnon, contained in the British Museum. Another remarkable feature is the fine surface and neat execution of the Egyptian sculptures, proving that this nation were exceedingly skilful in the arts of tempering and hardening steel. When this statue of the Young Memnon was set up in the Museum, it became necessary to cut holes in it, to unite the fragments; and although the masons' tools were hardened to an unusual degree, it was found that after half a dozen blows they were rendered uselessly blunt.

Etruscan Sculpture.—Some authorities hold that the Etrurians taught the Greeks, while others declare that the Greeks were the instructors of the Etrurians. Certain it is that the sculptured remains of the Etrurians were closely connected in style with the Greek, pointing to the fact that there must have been some connection between the two nations. The distinguishing signs of Etruscan sculptural art are—exaggeration of attitude, meagreness in dealing with details, and an unnatural position of the hands. They were mostly skilled in the making of vases. Their sculptured works were chiefly in bronze, stone, and *terra-cotta*.

Grecian Sculpture.—We now turn to Greece, a land where the art of sculpture soon rose superior to all those impediments which trammelled and restricted its advancement in other countries. We may attribute the perfection of Greek art to her sculptors having made nature in her best and most happy forms their model. Still, it must never be forgotten that the Greeks had an intuitive sympathy with beauty, either in poetry, painting, or sculpture. Did the Greek sculptor desire to typify brawny strength, he sought in the gymnasium for the deep, spacious chest, the well-knit joints, the broad shoulders, the massy muscles of the wrestler, for the elements that should be combined together to form his mighty Hercules. Did he wish to carve the semblance of the messenger of the gods, he selected from the victor in the foot-race the clean limbs and the elegant proportions, and from many well-selected athletes, made up a form of ideal beauty, combining the strength and agility we see personified in the statue of Mercury. Sculpture in Greece, as elsewhere, had its beginning in very rude forms. At first the symbols of divinity were little more than rude quadrangular blocks of stone. Between the 7th and 6th centuries B.C., the Greeks had frequent intercourse with the commercial Phœnicians. From this nation the Greeks borrowed their *Hermæ*, or god of roads and travellers; at first mere stone pillars. Upon these pillars a head was afterwards placed; thus forming the origin of busts. Progressing still further, sculpture was called upon to assist in the decoration of temples. Hands and feet were next added, a shield and spear were placed in the hands of the statues; and thus the first semblance of Pallas originated. Until the time of Dædalus of Athens, the bodies or trunks of large statues were a mere cylindrical pillar, as in the colossus of the Amycæan Apollo. Dædalus inaugurated a new era; and of his divine genius the Greeks said that he made statues walk, see, and speak. After this great master it was that all artists were symbolically termed *Dædalides*, the sons of Dædalus. Henceforth ancient Greek art may be divided into three styles—the Old Attic, the *Æginetic*, and the Etrurian. Statues, thrones embellished with figures, shields, vases, and coffers, were the productions of the art. Smiles, the father of statuary, lived at *Ægina*, about 1400 B.C.; and in 700 B.C. Rhecus of Samos invented the art of moulding and casting in brass. The famous brazen bull was made by Perillus, for Phalaris, who reigned in Sicily 564 B.C. But the true ideal style of Greek art was not inaugurated until the time of Phidias of Athens. This great genius lived in the time of Pericles, the age of classic models. For the Parthenon at Athens, Phidias wrought the statue of Minerva, and at Elis he set up his other great masterpiece, the famous Olympian Jupiter. Both were executed in ivory and gold. The god Jupiter was forty feet high, his face bore the expression of power, wisdom, and benevolence; and an epigrammatist, speaking of his

majestic proportions, said: "The statue of Jupiter would have thrust off the roof of the temple like a thin shell if it had ever risen from its golden throne." This statue of the Olympic Jupiter existed till the year 475 of our era, when it was destroyed by fire at Constantinople. Besides these great works, he made a statue of Pallas, in brass, for Athens, the Venus Urania, the Nemesis, in the temple at Marathon, and an Amazon, famed throughout Greece for the beauty of her limbs. Alcamenes of Attica, and Agoracritus of Paros, were his favourite disciples. The most famous works of Alcamenes were his Mars, Cupid, Venus, and Vulcan. It was said that Agoracritus was even superior to Alcamenes, and when he contended with the latter in the execution of a statue of Venus, the Athenians only adjudged the prize to Alcamenes out of partiality for their fellow-citizen. According to Varro, the Venus of Agoracritus was the finest ever wrought. Polyclethus of Argos was the author of the work deemed worthy of being ranked as the companion to the Jupiter of Phidias. This was the celebrated statue of Juno. Tenderness and softness were the characteristics of this master. He excelled in portraying the beautiful positions of the boys of the gymnasia, and of the sports of youth. His works were chiefly in metal and he was the author of the celebrated ideals of youthful beauty—the Diadymenus, a placid youth, who winds the wreath of victory round his brow; and the warlike Doryphorus, holding the lance. This last formed the celebrated "canon"—the model of all proportions. Myron of Eluthere in Bœotia, was the great rival of Polyclethus. Dismissing the soft and graceful forms which his contemporary sculptor loved to represent, Myron sought his models in the brawny athlete. He sculptured the ideal Hercules, the Discobolus throwing the discus. He was no less famous for his animal forms, the most celebrated of which were the Heifer and the Sea Monster. In one quality, however, he was surpassed by Pythagoras of Rhegium, who executed the ideal of Apollo, who, as an archer, had just shot the serpent Python. The finest statue possessed by the moderns is an imitation of this great work—the Apollo Belvedere. It is to be regretted that we do not possess any of the greatest works of the greatest sculptor of this period, Phidias; but there is no doubt that the sculptured decorations of the Parthenon were many of them executed by his own hand, whilst the remainder were produced by his disciples, under his immediate direction. These slabs, taken from the ruins of the Parthenon, sacred to Minerva, were through the public spirit of Thomas, earl of Elgin, collected for the British nation between the years 1802 and 1812. High spirit and graceful action characterize all the animals carved upon these beautiful slabs; and for purity of style and graceful expression, they form the finest specimens of ancient art in existence in our own times. (See ELGIN MARBLES.) The British Museum is, fortunately, also in possession of another beautiful series of Greek marbles—the Phigalian sculptures. They consist of a series of alti-relievi, depicting the battle of the Lapithæ and the Centaurs, and of the Greeks and Amazons. They are supposed to have been executed by the scholars and less skilful followers of Phidias, which fact is held to account for their inferiority as works of art. With all its beauty and simplicity, Greek sculpture made use of devices, which, perhaps, from insufficient knowledge of the subject, the best of modern fine art critics have condemned as being derogatory to the essential qualities of art. From an early period, and even during the best era of Greek art, the age of Phidias, the Greeks were accustomed to combine different marbles in the same work. This was called polythitic sculpture. Frequently, head, hands, and feet were formed of different stones, while wood and metal were employed for the draperies and accessories. The Greeks also painted their statues. The hair was often gilt, and even coloured sometimes; the backgrounds of alti-relievi were painted, in order to heighten the effect, and occasionally eyes of glass or silver were introduced. With Socrates, the sculptor of the draped Graces, and Athenodorus and Naucydes, commenced the third epoch of Greek sculpture. It is generally known as the beautiful style; and Scopas, Lysippus, and Praxiteles, uniting beauty and grace, brought the art to its highest perfection. The finest works of Scopas were the furious Bacchante, his Venus (the ori-

ginal, perhaps, from which the Venus de' Medici was copied), and the Triumph of Achilles, together with a number of charming combinations of Nereids and sea monsters. Forsaking the severe, grand, and sublime for the tender, flowing, and graceful, Praxiteles wrought in bronze and marble. Until this sculptor ventured to carve a Venus nude, all statues of female divinity had been draped. It is supposed that the Sleeping Faun at Munich, the Cupid contained in the Vatican at Rome, the Apollo Sautoconus, and the celebrated Venus of Cnidus, together with the group of Niobe, are imitations of some of the great works of this master. The rival and contemporary of Praxiteles was Lysippus of Sicyon, who was the great master of portrait sculpture. He is said to have executed in bronze exclusively. Alexander the Great would permit no other artist to carve his likeness. He represented Alexander from his childhood to his manhood. Pliny declares that Lysippus executed as many as six hundred and ten works. His horses were very beautiful. The other great sculptors of this period were Euthycrates and Bedas, sons of Lysippus; Xenocrates, who wrote a treatise on sculpture; Chares of Lindus, who cast the famous colossus of Rhodes; Agesander of Rhodes, and his three sons, who executed the celebrated group of Laocoon; Glycon of Athens, who formed the Farnese Hercules at Naples; and Apollonius and Tauriscus, who made the Farnese Bull, also at Naples. The beautiful fragment known as the Torso of the Belvedere, at Rome, and the Amaphrodite at Paris, also belong to this era of Greek art. The victorious Romans destroyed the existence of the arts in Greece; but, as if in revenge, all the sculptors of Rome were Greeks; all the great works in painting and sculpture were taken to Rome, and with these masterpieces the artists emigrated to the capital of their conquerors.

Roman Sculpture.—This art was brought from Greece to Rome, and the celebrated reclining statue of the dying Cleopatra was executed in the reign of Augustus, and a son of Cleomeles the Athanian made a statue which is held by some to be a figure of Germanicus. This work is now in the Louvre at Paris. Visconti is of opinion that it is intended to represent some distinguished Roman orator. Julius Cæsar was devoted to the fine arts, and even the most remote provinces of the Roman empire reaped the fruits of his refined taste. He embellished the cities of Gaul, Spain, and Greece, as well as Rome. Augustus embellished all the public places of Rome with statuary, and Agrippa employed an Athenian sculptor to decorate the Pantheon, as well as causing an aqueduct to be embellished with three hundred pieces of statuary in bronze and marble. Nero invited from Cisalpine Gaul, Zenodorus, who executed a colossal bronze statue of his patron, 110 feet high. It was during the reign of the last mentioned emperor that the Romans began to introduce the practice of making statues in different coloured marbles. They went so far as to imitate, by means of white and black stones, the colours of the eyes in a statue of an Ethiopian. The times now became too disturbed for sculpture to flourish; but it revived under Trajan, in whom, as well as in his successors, Adrian and the Antonines, the art found a munificent patron. Adrian was especially conspicuous for his fine taste. He caused to be restored all the old public edifices that had fallen into decay, besides erecting many new and magnificent buildings. The remains of one fine work remain to this day to attest to his munificence—the grand villa near Tivoli, about eighteen miles from Rome. After this prince, sculpture began to decline, and when the seat of imperial government was established at Constantinople, Constantine could find no artists worthy to decorate his new imperial residence. After Rome had been destroyed by the several inroads of the Northern nations, the finest productions of ancient art were demolished, and this work of destruction was consummated by the religious zeal of the primitive Christians, who swept away what remains there were of the statues of the Greek and Roman divinities.

Italian Sculpture.—Sculpture awoke to renewed life about the 10th or 11th century, in Italy. In the 11th century mention is made of a sculptor named Buono; Bonanno, of Pisa, lived during the 12th; whilst Niccolò Pisano, who died 1270, is esteemed the father of modern sculpture. Two of his finest compositions

are the "Taking down from the Cross," in front of the Duomo of Lucca, and the "Last Judgment and Punishment of the Wicked," in the cathedral of Sienna. Both these masterly works are bassi-relievi. Andrea Orcagna, poet, painter, and sculptor, died in 1389. Lucca della Robbia covered his beautiful *terra-cotta* models with a varnish which gave them the hardness of stone. He never disclosed the secret of his process; but there is a tradition which declares that he enclosed an account of the mystery in some of his models before they were baked; so that it could never be known until many of his beautiful works were destroyed. Lorenzo Ghiberti and Donato di Betto Bardi were distinguished masters of sculpture. Michael Angelo declared that the brazen gates made by the former were worthy of being placed at the entrance to paradise. Donatello, who died in 1466, enriched Florence, Genoa, and Venice with his works. During the 15th century, Andrea Verocchio, Andrea Ferracci, the two Pollajoli, and Mina di Fiesole, were great masters. Michael Angelo Buonarroti, born in 1474, exhibited at an early age the forecast of his wonderful genius. He became the protégé of Lorenzo de Medici, who assigned him apartments in his own palace. His colossal statue of Moses is a great effort of genius, as are also the allegorical figures of Day and Night, and of Dawn, Morning, and Evening, in the chapel of the Medici at Florence. Others of the masterpieces of this great and powerful master are, the statue of Christ at Rome, the statue of David at Florence, the half-drunken Bacchus in the same city. A profound knowledge of anatomy, mastery of execution, originality, combined with a vast store of energy, are the principal characteristics of Michael Angelo. Jacopo Tatti, or Sansovino, as he is more commonly termed, was more distinguished as an architect than as a sculptor. Baccio Bandinelli, born at Florence in 1487, attempted to become the rival of Michael Angelo. A great anatomist, his style was rude and energetic. He restored the right arm of the Laocoon. Benvenuto Cellini was a painter, goldsmith, and sculptor. He was born at Florence in 1500. Most of his finest large works, which were cast in bronze, are preserved in his native city. The one celebrated female sculptor is Propozia di Rossi, of Bologna, who died at an early age, in 1530. An accomplished painter, a musician, as well as sculptor, she is said to have become inspired with an affection for a young artist who did not return her love. Her last work was a basso-relievo representing the story of Potiphar and Joseph, in which she depicted herself as the wife of Potiphar, with the object of her affection flying from her. Guglielmo della Porta, Bernini, Alessandro Algardi, of Bologna, Il Fiammingo, a native of Brussels, who excelled in portraying the forms of childhood, Francesco Mocchi Faggini, and other names, mark the different eras of Italian sculpture down to the present century.

English Sculpture.—Properly speaking, there was no British school of sculpture until the commencement of the 19th century. It is said that there are no examples of a sepulchral statue earlier than the Norman invasion; and to this era, therefore, some critics are disposed to assign the first practice of this department of the sculptor's art in England. The beautiful chapel of Henry VII. in Westminster Abbey is said to have been originally adorned with three thousand figures; but although this number is most probably an exaggeration, there is little doubt that the statues, whatever their number, were the work of native artists, an Italian artist, Torrigiano, being employed only on the tomb. Sculpture in England languished until the reign of Charles I., in whose day we find Christmas carving a monument to Sir William and Lady Pitt at Strathfieldsaye; and Stone, another native artist, executing a monument to Sir George Holles in Westminster Abbey. The sculptured work upon the Monument of London, raised during the reign of Charles II., is but a poor example of sculptured art. The art was chiefly practised by foreigners after this time. Italians, Frenchmen, Flemings, brought to England only a poor reflection of the genius of the Italian sculptors; but when, early in the present century, a national collection of sculptures was commenced to be formed, the art revived. To Flaxman we are indebted for founding, upon true principles, the English school of sculpture; and he has had worthy followers in Sir R. Westmacott, Chantrey, Baily, Carew, and Foley.

Sculpture in other Countries.—In France, Jean Goujon, of Paris, is the first distinguished sculptor. The brothers Marsy, who cast the statues of Bacchus and of Latona, and the famous group of horses at the Bath of Apollo at Versailles, was distinguished in the 17th century. Baptist Pigalle executed a Mercury and a Venus for the king of Prussia; and the celebrated tomb of Marshal Saxe at Strasburg is by this master. Albert Durer, whose genius embraced various departments of the fine arts, was among the first great German sculptors, his genius having been transmitted through many worthy followers to the greatest among modern German sculptors, Christian Rauch and Danneker. As Canova emancipated modern Italy from those false perceptions which had so long diverted the current of pure taste, so Thorwaldsen, the Danish sculptor, was superior to all his contemporaries in the grandeur of his forms and in strength of expression, besides placing his native land among the list of those countries that have given rise to artistic genius.

The Mechanical Process of Sculpture.—The artist having conceived and well-ordered his subject, he either makes a preliminary sketch of it upon paper, or else proceeds at once to model it, on a small scale, in clay or wax. By this means, he is enabled to improve the general arrangement of his figure or group of figures. The genius of the artist is altogether displayed in this perfectly original model; for the subsequent process of copying it in stone is chiefly mechanical. When a large clay model is made, a skeleton or frame of wood or iron is constructed whereon to place a proper quantity of wet clay. This clay is moulded by the hand, and by tools of wood and ivory. The figure is thus built up in clay, and whether it is subsequently to be draped or otherwise, it should always be modelled naked, so that the true proportions of the form may be attained, also that the drapery may have a natural curve and fall. If the design be in rilievo, a plane is prepared upon which the design is drawn. Upon this sketch, bounded by the outlines, the wet clay is laid; afterwards the clay is modelled by the sculptor. In either case, whether in the "round" or in "relievo," the clay must be kept damp by wet cloths, in order to prevent the shrinking or cracking of the model. To obtain a "cast" of this model is the next process. The model is covered with a mixture of plaster of Paris and water, and when this has become hardened, the clay model within is carefully picked out. The plaster of Paris matrix is then washed; the interior is brushed over with a composition of oil and soap and a fresh supply of plaster of Paris poured in. When this sets, the matrix is struck off, piece by piece, with chisels, and a cast of the model, which has not adhered to the mould by reason of the oily compound with which the latter had been smeared, is obtained. This cast is the exact fac-simile of the original model, and if it is intended to execute the work in bronze, another mould is taken from it by the founder. (See **FOUNDING**.) If it is intended to copy the work in marble, a block of marble is marked with a number of pencil points, to correspond to the chief elevations and cavities in the figure to be imitated; these forming a series of guides to the workmen engaged in carving a rough outline of the original work. A superior workman next copies the nicer details of the work by means of chisels, rasps, and files, the pencil-points acting as his guide. Finally, the sculptor himself gives the finishing touches, and goes entirely over his work, improving each detail, until the realization of his idea is obtained. When required, the surface is polished with pumice-stone and putty-powder.

Sculptured Stones.—Ancient stones, decorated with rough sculpture, and belonging to the very early periods of Christianity. They are found throughout Scotland and Ireland and the adjacent islands, and also in Norway and Denmark. There are about 150 in Scotland alone. A valuable work on these stones has been prepared by Mr. John Stewart, and contributed to the Spalding Club. (See also **RUNES**.)

SEAL, seal (Fr., *seau*).—An impression made on paper, clay, wax, or other substance, by means of a die of metal or other material.

History of Seals.—Among the Egyptians seals were in use; the kings and high dignitaries of the state using gold, silver, or precious stones, and the common

people employing porcelain or vitrified soapstone, for the purpose of obtaining impressions on clay, or fine Nile mud; afterwards coloured wax and lean came to be used. These seals bore engraved representations of gods, mottoes, emblems, and the names of royal and other persons. The ancient Hebrews used engraved onyx rings and bracelets to seal documents with. The Assyrians and Babylonians were likewise accustomed to use seals of various forms, as did also the Phœnicians. The earliest seals of the Greeks consisted of impressions of worm-eaten pieces of wood; but so early as the 6th century B.C., signet-rings worn on the fourth finger of the left hand came into fashion. Impressions from these were made on a fine clay, and were attached to doors or to anything of value in the houses, as a protection against the pilferings of slaves. The Romans most probably borrowed the use of seals from the Etruscans. The state provided ambassadors with a gold signet; but for private use they were only permitted to use an iron ring. Under Tiberius freedmen were permitted to employ a seal. Doors of female apartments, bags of money, granaries, papyri, and other objects of value, were secured by a seal. A law was passed during the reign of the emperor Nero, by which it was ordered that wills should be secured by a cord passed three times round them, and afterwards secured with the signum, or seal, the seals of seven witnesses being required to make a will valid. The impression made by the seal of Julius Cæsar was the likeness of the goddess Venus; of Augustus, first of all, a sphinx, and later, the head of Alexander the Great. The subsequent emperors used a variety of similar devices. In the days of the empire leaden seals were employed for private purposes; and with Constantine there came into use a disc of gold or silver, called bulla, which was attached to documents by a woollen or silken bond. The great dignitaries, as well as private individuals, during the Byzantine epoch, had seals bearing either the heads of Christ or the Virgin, or their names only; and with the fall of the empire of the West, the popes commenced the use of the leaden bullæ. In the 12th century, the papal bulla became of larger size, bearing the heads of Saints Peter and Paul, with a cross between. In addition, the popes used the seal of the fisherman, upon which was shown St. Peter fishing. Gold and silver seals were employed by Charlemagne, the Venetians, and others; and the famous treaty of the Cloth of Gold made between Henry VIII. and Francis I. of France had gold seals appended. Wax seals slowly superseded all other kinds; and when writing was not a common accomplishment, seals, as a rule, took the place of the name. The Normans introduced wax seals into England, and every person above the rank of knight had his seal with its characteristic effigy. Seals bearing armorial bearings were in use in the 12th and 13th centuries, and in the 13th century the middle classes began to assume coats of arms for their seals, till, at length, the seal, no longer acting as a substitute for the signature, degenerated into a legal formality. All legal instruments whereby real estate is conveyed must bear a seal.

Royal Seal.—In England there are three royal seals—the great, held by the chancellor; the privy seal, held by the lord keeper; and the privy signet, held by the principal secretaries of state. The first-mentioned seal is attached to letters patent, grants of inheritance, offices in fee, and writs at common law; the second is valid for the issue of treasure, &c.; the third authenticates the sign-manual and the writ *Ne esset regno*.

SECRET WRITING, OR CRYPTOGRAPHY, *se'kret* (Gr. *kryptos*, secret; *grapho* I write).—The art or act of sending secret information by means of writing which is intended to be illegible to all except the person for whom it is particularly designed. The ancients had several very imperfect methods of secret writing. Ovid teaches young women, in order to deceive their guardians, to write to their lovers in new milk, and to make the writing legible by means of coal-dust or soot. The same means are proposed by Ausonius to Paulinus. It is now known that several metallic solutions may be used for the purpose of secret writing: these inscriptions, on being ex-

posed to the action of heat or certain vapours, &c., become visible. In its stricter meaning, cryptography signifies writing with signs which are only legible to him for whom the writing is intended, or who has a key of the signs employed. One of the simplest methods is that of using for every letter of the alphabet some sign, or only another letter. This sort of secret writing is, however, easily deciphered without a key; on this account various ingenious illusions are used, and various keys are employed, according to rules agreed upon beforehand.

SEGNO, *sen'-yo* (Italian, *sign*).—In Music, a word used to shew that a part is to be repeated.

SEMI-BREVE, *sem'-e-breve*.—The longest note employed in modern music, much resembling in shape a large O lying on its side. It is the starting-point of our measure of time.

SEMICOLON. (*See PUNCTUATION.*)

SEMI-NORMAN ARCHITECTURE.

—A term principally used in Ecclesiastical Architecture, and applied to those buildings in which the Norman and Gothic styles were mingled, and which date between 1170 and 1220 A.D., during the reigns of Henry II. and John. The architecture of this period, and even up to 1300, is exceedingly beautiful and chaste, simple and elegant in design, and excellent and delicate in execution, equally applicable to the modest village church and the noble abbey or cathedral. In the one case, it is remarkable for its unobtrusive simplicity, and in the other for its solemn and majestic grandeur. (*See GOTHIC ARCHITECTURE.*)

SEMI-QUAVER, *sem'-e-kwai-ver*.—A musical character, formed of a crochet with two hooks affixed to the end of its tail, equal in length to $\frac{1}{16}$ th of a semibreve.

SEMITIC FAMILY OF LANGUAGES,

se-mit'-ik.—Divided into three branches—the Aramaic, the Hebraic, and the Arabic. The Aramaic occupies the north, including Syria, Mesopotamia, and a portion of the ancient kingdoms of ancient Babylonia and Assyria. It is known to us chiefly in two dialects, the Syriac and Chaldee. A translation of the Bible was made in this dialect in the 2nd century. Christian literature dating from the 4th century is rich in it, and it is still spoken, albeit in a very corrupt form, by the Nestorians of Kurdistan, as well as by some Christian tribes in Mesopotamia. The language adopted by the Jews during the Babylonian captivity had the name of Chaldee given to it. The Jews adopted this language from their conquerors, both for conversation and for literary purposes, yet they always retained a knowledge of their sacred language. The Aramaic was a dialect transplanted from Babylonia to Palestine: it was the dialect spoken by Christ and his disciples. This language remained the literary idiom of the Jews till the 10th century. A little later the Jews adopted the Arabic as their literary language, retaining it till the 13th century; after which they returned to a form of modernized Hebrew, which they still continue to make use of for learned discussions. The Arabic, or Southern class of the Semitic family of languages, includes the Ethiopic, and the Himyalitic inscriptions, both being dead languages, whilst the living languages belonging to this class are the Arabic and the Aramaic. The Hebraic, or middle class of the same family, includes Biblical

Hebrew, the Samaritan of the 3rd century, the Carthaginian, and the Phœnician inscriptions, among its dead languages; its living dialects being represented by the modernized Hebrew of the Jews. The Aramaic, or Northern class of the Semitic family of tongues, has only one living representative, the Neo-Syriac; the Chaldee, the Syriac of the 2nd century, and the cuneiform inscriptions of Babylon and Nineveh being all dead languages.

SEMITONE, *sem'-e-tone*.—Literally, half a tone, the smallest of all the intervals admitted in modern music; of which there are two species: viz., *major*, and *minor*. The first is produced by rising a degree, as from G natural to A flat, and the latter by passing from a natural note to its sharp.

SEPOYS, OR SIPOYS, *se'-poiz* (corrupted from Hindoo).—The name given in India to native soldiers disciplined in the European manner. The Sepoys now in the pay of the English government form a large and well-trained army. In general, the men composing this army are somewhat smaller than European soldiers; but they are brave, hardy, and active, capable of undergoing much fatigue, and of sustaining great privations. Previous to the mutiny of the Bengal army in 1857, the East-Indian army consisted of a far greater number of native than of European troops; and to them Great Britain is chiefly indebted for her Indian empire. The French were the first to see that the transportation of troops would be too expensive, and that Europeans would perish in great numbers by the exposure at sea, and in the climate of India. In consequence, they took Hindoos into their pay, and the same policy was adopted by the English. In 1858, the native army, with the whole of the East-India Company's troops, were transferred with the government of India and placed under the crown. Since that time, the native army has been greatly reduced, the government seeking the recruits for its coloured army chiefly from the Sikh population, and not, as formerly, from the Hindoo.

SEPTEMBER, *sep-tem'-ber* (Lat., *septem*, seven; Fr., *septembre*).—The ninth month in the year. It derives its name from having been the seventh month in the year established by Romulus, which began with March. Although several Roman emperors gave names to this month in honour of themselves, it has to the present day retained its original appellation.

SEPTIMOLE, *sep'-ti-mole*.—In Music, a group of seven quavers into which a minim may be divided, or of seven semiquavers into which a crotchet may be divided.

SERAGLIO, *se-rall'-yo* (Ital.).—Literally, the palace of an Eastern prince, but in its more common application, that in which women are lodged. The seraglio of the Grand Signior of Constantinople is a long range of building, containing apartments for himself and the officers and dependents of his court, as well as for the females of his harem.

SERAPHINE, *ser'-a-feen*.—A musical instrument, with keys and vibratory reeds something like the Harmonium, of which it was the precursor. (See HARMONIUM.)

SERENADE, *ser-e-naid'* (Ital. Sp., *sere-nata*).—Music performed at night in the open

air, under the window of the person it is intended to entertain. It was quite a common thing in Spain for gentlemen to entertain their mistresses in this manner.

SEVEN WONDERS OF THE WORLD.

—In ancient times these were: 1. The Pyramids of Egypt. 2. The Mausoleum, or tomb built for Mausolus, King of Caria, by Artemisia, his queen. 3. The Temple of Diana at Ephesus. 4. The Walls and Hanging Gardens of the city of Babylon. 5. The vast brazen image of the sun at Rhodes, called the Colossus. 6. The ivory and gold statue of Jupiter Olympus. 7. The Pharos, or watch-tower built by Ptolemy Philadelphus, king of Egypt.

SEVEN YEARS' WAR.—In European History is the name given to a war carried on in Germany between 1756 and 1763. The principal contending parties were Frederick II. of Prussia and the Austrians; the latter being at one time assisted by Russia, France, the German empire, and Sweden; while the only fast ally of the former, during the struggle, was England. The war raged with varying success; but at length Frederick seemed brought to the verge of ruin, when, in 1762, the empress of Russia died, and her successor, Peter III., made peace with Prussia, and thus led to the termination of the war, the peace being concluded at Hubertsburg on 15th February, 1763. This disastrous war devastated Germany, and cost Europe a million of lives, without yielding material advantages to any party.

SHADOWS.—Are those portions of surfaces which are debarr'd from the rays of light which would fall upon them but for the intervention of some opaque body. That side or part of such opaque body which is turned from the source of light is said to be *in shade*; that which is towards the light is said to be *illuminated*.

Shadows, Drawing of.—Light and shade are important aids to perspective effect, and, since all objects partake of them more or less, are necessary constituents of true representation. The source of light in a picture is called a *luminary*. Luminaries are of three kinds—natural, artificial, and secondary. A *natural* luminary is one which exists in nature, as the sun, moon, stars, or an illuminated piece of sky. An *artificial* luminary is the result of art, as a fire, lamp, lantern, or candle. A *secondary* luminary is an opening through which light enters from any natural or artificial one, as a window, door, or opening in a wall. The *place* of a luminary is its perspective situation on the plane of delineation, or, if beyond the limits of the picture—as is mostly the case—on any imaginary extension of it. The surface on which the shadow is cast is called the *shadow-plane*. In landscapes, the ground-plane is the principal shadow-plane. The *foot* of a luminary is a point on the shadow-plane produced, at which a line at right angles with that plane from the luminary would intersect it. But in the case of a secondary luminary, as of a window, which usually occupies considerable width in the picture, the foot of the luminary is not a point, but a line comprised between the intersections of two lines with the shadow-plane at right angles with it, one of those lines being drawn from each extremity of the luminary. Thus, in an interior view, the window is a secondary luminary, whose *foot* is the line comprised between the lines drawn from the extremities of the window, which are at right angles with the floor. Since it is the intervention of an opaque body between the luminary and the shadow-plane which causes a shadow, it follows that the shadow will be always projected in a direction from the luminary; and since rays of light proceed from a luminary in straight lines, it follows that a straight line passing from a natural or artificial luminary through any opaque point to any plane, will intersect the surface of that plane at a point which will

be the situation of the shadow of the opaque point on that plane. It is important to bear this in mind, because by finding the shadows of points in any object we can often determine the form of its entire shadow. Rays of light, however, do not proceed from all luminaries in the same way. Those *natural* luminaries, the sun and moon (speaking of the latter when she is at the full), present to the earth's surface a luminous disc of much larger extent in reality, though rendered apparently less by their great distance, than any part of that surface which can be comprised within the limits of a picture. In such cases the luminary is larger than the object illuminated; and since every point of the disc of those luminaries emits rays of light in straight lines, it follows that the rays will proceed in parallel lines from the luminary to the object. But parallel lines in perspective converge towards a point; and the converging point of such rays will therefore be that point on the plane of delineation which represents the centre of the luminary; in other words, the *place* of the sun or moon in the picture. *Artificial* luminaries throw off their rays of light in a different manner. Being small, and the luminary generally within the picture, its rays proceed in all directions from it as a central point. Though this causes a material difference in the form of the shadow from that which would be projected by a natural luminary, the rule is the same, viz., that the rays converge towards the place of the luminary. *Secondary* luminaries usually occupy a larger extent of the picture; and since the light they admit is a borrowed light, and diffused over the entire surface of the luminary, they generally admit a fainter light, and cast a feeblér shadow. They must be dealt with by different rules from those which are natural and artificial; their greater surface forbids their being considered as points. Each point in that surface must be dealt with as a luminous point; and the form of the shadow must be determined by rays from each of the outer extremities of the luminary. These definitions will become better understood as the student proceeds. Light is reflected from all opaque surfaces, and the same law obtains with respect to reflected light as applied to solid bodies—the *angle of reflection is equal to the angle of incidence*. For this reason less light is reflected to a distant than to a near object. In architectural and other subjects, where a ground-plan and elevation are prepared for the purposes of the perspective drawing, the easiest way of drawing the shadows on the latter sometimes is to draw them first on the plan and elevation, and then put the points and lines of the shadows into perspective, by the rules given in the article upon perspective drawing, in the same manner as though they were points and lines of the objects themselves. For this purpose no further rules are necessary, except that the place of the luminary as regards the plan, and its height as regards the elevation, must be given or assumed; this will determine the direction of the rays, and thence the geometrical forms of the shadows in plan and elevation, by which means their perspective forms will be easily obtained on the picture. But in many drawings no plan nor elevation has been necessary; for which reason rules are required by which perspective shadows may be found without them. As a safe guide to the true understanding of these, the learner must keep clearly in mind that the rays of light, on the direction of which the forms of shadows largely depend, are subject to all the perspective laws of parallelism, convergence, &c., which appertain to straight lines in general, and therefore that the shadows themselves are governed by the same laws. The principal circumstances influencing the form of a shadow are the form of the original object, the position of the luminary with respect to it, the nature of the luminary, and the direction of the shadow-plane. The shadow of any point is found by drawing a triangular perspective plane, whose *perpendicular* is a line from the luminary to its foot, whose *base* is a line on the shadow-plane passing perpendicularly beneath the given point from the foot of the luminary, and whose *hypotenuse* is a line from the luminary through the given point intersecting the base-line at the shadow of that point. A clear conception of this will give an insight into the whole principle of shadow-drawing; for by obtaining perspective views of this imaginary triangular plane, as applied to the various prominent points of objects, we easily obtain, at the places where its hypotenuse meets its base, the perspective shadows

of those points which denote the outline of the entire shadow. Having found the shadow thrown by any one plane on another, it is easy to find those of others parallel with it thrown upon the same plane.

SHALLOP, *shal'-lop*.—A large old-fashioned boat made shallow and open, and carrying one or two masts schooner-rigged. Luggers and yawls are now often used instead of shallops. (See **BOAT**.)

SHARP, *sharp*.—A character employed in Music, the power of which is to raise the note before which it is placed one half-tone. It was originally meant to represent, by its four cross lines, the four commas of the gamut.

SHASTRA, or **SHASTER**, *shas'-tra*.—The name given to the authoritative, legal, and religious books of the Hindoos. (See **HINDOOS**, **LITERATURE OF THE**.)

SHAWM, *shawm*.—An ancient mustial instrument something like the clarinet or hautboy.

SHIELD, *sheeld* (Sax., *scyld*).—A very ancient piece of armour designed to ward off the sword and missiles of an enemy. The Greeks and Romans made use of shields of many shapes. (See **ARMOUR** and **BROADSWORD**.)

Shield, in Heraldry, is the escutcheon on which the armorial bearings are depicted. The ground of the shield, as well as of banners, bearing various figures, termed ordinaries and charges, is called the field. There are also upon the shield various points or locations, each having their especial and appropriate name. The shield, together with its charges and ordinaries, bears five colours, together with the tints of two metals, gold and silver, called respectively *or* and *argent*. Red, called in heraldry *gules*; blue, termed *azure*; black, entitled *sable*; green, called *vert*; and purple, named *purpure*. Heraldry also admits two colours, which are rarely seen in English armorial bearings, called *Tenne*, an orange tint, and a dark blood-red, approaching to purple, called *sanguine*, or *murrey*. *Tenne* is shown on the shield by perpendicular lines crossing from right to left; *sanguine* is depicted by transverse lines from each side of the escutcheon. (See **HERALDRY**, **CROSS**, **AZURE**, **GULES**, **PURPURE**, **OR**, **ARGENT**, **VERT**.)

SHORTHAND, *short-hand*. (See **STENOGRAPHY**, **PHONOGRAPHY**, **PHONETIC WRITING**.)

SICILIAN VESPERS, *sis-il'-yan*.—Charles of Anjou, the fourth son of Louis VIII., king of France, having been selected by the pope for the throne of Naples, in opposition to Manfred and Konradin, the last of the Hohenstaufen, he proceeded to take possession of it by force of arms, and when he had succeeded, made a most cruel use of his power. An accident at length, however, set fire to the disaffection of his unwilling subjects. It was on Easter Monday, in the year 1282, a day consecrated in Catholic countries to a mixture of gaiety and religion, that the citizens of Palermo set out according to custom to hear vespers at the church and village of Montereale, not far distant. The French soldiers whom Charles kept about him joined the procession, and one of them grossly insulting a young girl, her betrothed lover instantly pierced the Frenchman with his own sword. This act was a signal. It corresponded so fully to the feelings of all present, that "Death to the French" ran from mouth to mouth, and the deed accompanied the word, every Frenchman in the procession being assassinated while the vesper-bell was still tolling. Excited by blood, the assassins rushed back to Palermo to complete their massacre.

Not a Frenchman, save one, escaped—all, to the number of 4,000, were butchered; and even Sicilian women who had married Frenchmen suffered the same fate, in order that the progeny of the hated strangers might be eradicated from the island.

SILHOUETTE, *sil'-oo-et.*—In the Fine Arts, is the representation of the outlines of an object filled with black colour, in which the inner lines are sometimes finely drawn in white. The name comes from Etienne de Silhouette, a French minister of finance in 1759, who strove to enforce severe economy in the administration. Whilst he was in power, all the fashions in Paris took the character of parsimony. Coats without folds were worn; snuff-boxes were made of plain wood; and instead of painted portraits, outlines only were drawn in profile, and filled with Indian ink. All these styles were called *à la Silhouette*.

SIMILE, *sim'-e-le* (Lat.).—In Rhetoric, is a figure by which two things are considered with regard to a third that is common to both. Similes serve two purposes: when addressed to the understanding, their purpose is to instruct; when to the heart, their purpose is to please. To have a just notion of similes, they must be distinguished into two kinds: one common and familiar, as where a man is compared to a lion in courage, and another more distant and refined, as where two things which have in themselves no resemblance or opposition are compared with respect to their effects; as where a comparison is insinuated between a flower and a song, with reference to the emotions they produce in the mind.

SINE DIE, *sin'-e die* (Lat., without day).—A term usually employed in connection with meetings or assemblies, which are adjourned or prorogued, without a day being specified for re-assembling.

SINGING, *sing'-ing*.—The act of producing music by the voice. It has been said that the human voice is the most perfect and most complete of all musical instruments; but even the best voice can be much improved and strengthened by judicious training. (See MUSIC, VOICE.)

SINISTER, *sin'-is-ter*.—In Heraldry, signifies the left-hand side of the escutcheon, or anything that is used in armoury; that is, the object being placed immediately before the spectator, the side opposite the right hand is the *sinister*, and that opposite the left hand the *dexter*.

SIR, *ser* (Fr., *sieur*).—A word of respect used in addressing men, as madam is in addresses to women. It is likewise the title of a knight or baronet. Shakespeare sometimes used it synonymously with man.

SIRLOIN.—Sir, when prefixed to loin, as in sirloin, is a practice which is said to have originated in the knighting of a loin of beef by one of the English kings in a fit of good humour.

SIZARS, *siz'-arz*.—A name given to a class of students at the university of Cambridge, of limited means, and who enjoy certain advantages over the others. The name is said to be derived from size, which, in university language, denotes an allowance of provisions. Sizars have usually their commons free, and receive various emoluments. Formerly, they were required to perform certain menial offices; but that has long been done away with, and sizars are now almost

entirely on the same footing as independent students. A like class of students at Oxford are called servitors.

SKALDS. (See SCALDS.)

SKATING, *skait'-ing* (Dut.).—One of the finest exercises and most healthful out-of-door pastimes in winter, when rivers and ponds are frozen and offer a clear surface of ice. The art consists in poising the body on a sharp ridge of iron beneath the sole of the foot, and advancing on the ice in that position, one foot relieving the other. The skate itself is a well-known apparatus, generally made of wood and iron, with straps and buckles to attach it to the foot. The iron should be about a quarter of an inch thick, and not deeper than three-quarters of an inch, and smooth or flat along its under edge. The edges should be smooth, free from rust, and sharply ground. The best skaters are found in Holland, where men and women skate to market, Germany, and Russia. In the "Edda," written 800 years ago, skating is mentioned. The god Uller is represented as being distinguished for his beauty, arrows, and skates. In speaking of skating, Klopstock says that man, "like the Homeric gods, strides with winged feet over the sea transmuted into solid ground." Goethe, Herder, and other German poets, have also sung its praises.

SKIRMISHERS, *skur'-mish-ers*.—Soldiers arranged in open order—i.e., about six or seven spaces between each—and placed on the outskirts of the main army to prevent surprise from the enemy. Skirmishers may fire at their own discretion.

SKITTLES, *skit'-tles*.—A popular game in England, sometimes also called nine-pins, because nine skittles are ordinarily used. The skittles are rounded pieces of hard wood, of a smaller size towards the end than towards the top, but having a point sloping up from the shoulder. Nine of these being placed together, the player endeavours to knock them all down in a certain number of throws by a wooden ball. The rules vary slightly in different places. (See BOWLS.)

SMITHSONIAN INSTITUTE.—A famous Institute at Washington, Columbia, U.S.A., organized by Act of Congress in 1846, in pursuance of the will of James Smithson, an Englishman, who bequeathed a large sum to the United States for the increase and diffusion of knowledge among men. It is governed by persons appointed by the Federal government.

SMORZATO, *smor'-zay'-to*.—Also called Smorzando. A term in Music, expressing a gradual diminution of tone until the sound dies away.

SNELL EXHIBITIONS.—Were founded in the year 1677 by John Snell, of Uffeton, Warwickshire, for the purpose of educating Scottish students at the University of Oxford. Snell was a native of Colmonel, in Ayrshire, but he removed to England, where after holding several legal offices, he was appointed seal-bearer to the Court of Chancery. In 1679 he died at Holywell, near Oxford, leaving his estate of Uffeton, near Leamington, to trustees, for the foundation of the ten scholarships which now bear his name. The trustees named by him are the Vice-Chancellor of Oxford University, the Provost of Queen's, the Master of Balliol,

and the President of Saint John's College. These exhibitions have been the subject of much litigation in the Court of Chancery, and are now administered under a scheme settled in 1861. The exhibitors are nominated by the College of Glasgow, and receive £108 annually each during five years. Two exhibitors being nominated annually after public competition. Candidates must have been born in Scotland, and must have resided for two years at least in Glasgow College, or for one year in that college and two at least in some other Scotch College. None are admitted to examination who have completed their 21st year, or have been members of the university of more than two years' standing from the day of their matriculation inclusive. The list of Snell exhibitors includes not a few well-known names; such as J. G. Lockhart, Sir William Hamilton, the present Archbishop of Canterbury, Dr. Tait, &c.

SOLECISM, *sol'-e-sizm* (Gr., *soloikismos*).—In Grammar and Rhetoric, is a violation of the rules of syntax, in the speaking or writing of a language. It is said to have received its name from a town in Cilicia, whose inhabitants spoke a barbarous Greek. A solecism differs from a barbarism, inasmuch as the latter denotes the use of a word or phrase not belonging to the language. Quintilian specifies four different kinds of solecism: (1) the addition of a superfluous word; (2) the leaving out one that is necessary; (3) perverting the order of the words in a sentence; (4) using an improper form of a word.

SOLEFAING, OR SOLMIZATION, *sol'-fa'-ing*, *sol-mi-zai'-shun*.—The art of sounding the notes and syllables of the gamut together. This preparatory exercise, which is of the highest importance in sight-singing, was adopted at a very early period. The Greeks used four syllables, *te, ta, the, tho*, to denominate the four sounds of their *tetrachord*. When Guido D'Arezzo substituted his *hexachord* in place of the ancient *tetrachord*, he adopted, at the same time, the syllables *ut, re, mi, fa, sol, la*, for his solmization, which he derived from the stanza of a hymn to St. John the Baptist. These six syllables are still employed by the French, with the addition of *si* for the seventh; the Italians have, however, changed the *ut* into *do*, as softer and more euphonious. This alteration has also been adopted in England; the seven notes are, therefore, now named as follows:—

Do	Re	Mi	Fa	Sol	La	Si
C	D	E	F	G	A	B

The seven syllables are sometimes called the *Solfeggio*.

SOMERSET HERALD. (See **HERALD**.)

SONATA, *son-ah'-ta*.—In Music, a composition for a solo instrument, sometimes accompanied by one or two others, and consisting of three, four, or even more movements, which, however, consist of a subject or subjects shown in the key of the dominant, and afterwards presented in a great variety of aspects. Beethoven's and Haydn's sonatas for the pianoforte are well known.

Sonatina.—A short and less elaborate sonata.

SONG, *song* (Sax.).—Applied in general to a piece of music, whether contrived for the voice or an instrument. In poetry, it is a short composition consisting of easy and natural verses, set to a tune in order to be sung. In a song, the

poetry and music are agreeably joined together, the verses are easy, natural, and flowing, and contain a certain harmony which neither shocks the reason nor the ear. A song has been defined to be a soft and amorous, or a brisk and Bacchic, thought, expressed in few words; but this is to restrict it within too narrow limits; for we have devout songs, satirical songs, panegyric songs, &c. According to Dr. Aikin, a song may "be largely defined a short poem divided into portions of returning measure, and turning upon some single thought or feeling." At all times, and in all places, songs have afforded amusement and consolation to mankind. Every passion of the human breast has been vented in song, and the most savage as well as the most civilized inhabitants of the earth have delighted in these effusions.

SONNET, *son'-net* (Ital., *sonetto*).—A species of poetic composition, consisting properly of fourteen iambic verses of eleven syllables. It is divided into two chief parts, each consisting of two divisions, in the former each comprising four lines (*quadrain*), in the latter three (*terzina*). The *quadrains* have two rhymes, each of which is repeated four times; and in the common Italian form the rhymes are the first, fourth, fifth, and eighth verses, and the second, third, sixth, and seventh; but several other forms are also adopted. In the two *terzine*, there are either three rhymes each twice repeated, or two rhymes thrice repeated in all positions. The sonnet generally contains one principal idea pursued through the various theses of the different strophes, and adorned with the charm of rhyme. Italy and Spain are the countries in which the sonnet is most cultivated, the lightness and flexibility of their languages being eminently suited for such compositions. England has furnished many good sonnet writers, the principal being Shakespeare, Milton, Drummond of Hawthornden, Wordsworth, Keats, Landor, Tennyson, and others.

SOPRANO, *so-prah'-no*.—The highest kind of feminine voice, the characteristics being sweetness and mellowness, perhaps less full than the alto, but lighter, fresher, and more lively. (See **VOICE**.)

SORBONNE, *sor-bon'*.—The name of a celebrated college of France, founded by Robert de Sorbonne, an ecclesiastic of the 13th century. It was originally intended for the support of secular priests who should devote themselves wholly and gratuitously to the work of instruction in theology. The members of the college were all either doctors or bachelors of theology, and the high reputation which they enjoyed caused them to be continually appealed to on questions of theology or morals. Not less inimical to the Jesuits than to the Reformation, the Sorbonne steadfastly maintained the liberties of the Gallican Church, and in the Jansenistic disputes, though not taking part with the Port Royalists, it was always opposed to the Jesuits. Afterwards the name of Sorbonne was applied to the whole theological faculty of the Parisian university.

SOSTENUTO, *sos-ten'-u-to*.—In Music, a term signifying a sustained mode of execution.

SPEAR, *speer* (Sax. *speare*).—A weapon employed both in war and in hunting, consisting of a long wooden handle, having at one end a sharp spike of steel. It is sometimes called a lance.

SPINET, *spin-et'* (Ital., *spinetta*).—An instrument of the pianoforte kind. The date of its invention is unknown, but it was, according to Marot, in common use in France during the reign of Francis I. (A.D. 1515-46). It succeeded the virginals, from which it seems to have differed very little, and consisted of a case, sounding-board, keys, jacks, and a bridge. Queen Anne possessed one of the finest spinets ever made, which she valued so highly that, just before her death, she gave special directions that it should go to the master of the children in the Chapel Royal, and regularly descend to his official successors. The spinet seems to have gone entirely out of use since the middle of the last century, the pianoforte having superseded it and every other instrument of its kind.

STAFF COLLEGE, *staff*.—About the year 1800, the English Government first established a special school for the purpose of instructing officers in the art of surveying ground, in connection with that part of tactics which relates to the selection of routes and of advantageous positions for troops. These officers were first employed in Egypt, where they rendered considerable service; and the school was afterwards united to the Royal Military College. At that institution, under the name of the Senior Department, or Staff College, a limited number of officers continue to be instructed in the duties of the staff, and in the sciences connected with the military art.

STAR CHAMBER, COURT OF THE, (Lat., *camera stellata*).—Was a tribunal which figures largely in certain parts of English history. It is said to derive its name from the room in which it sat, the old council chamber of the palace of Westminster, because the roof was at first garnished with gilded stars. This court was of very ancient origin, and was remodelled by 3 Henry VII. c. 1, and 21 Henry VIII. c. 20. It was under the direction of the chancellor, and consisted of divers lords, spiritual and temporal, being privy councillors, with two judges of the courts of common law. It had jurisdiction in cases of forgery, perjury, riot, conspiracy, fraud, libel; but its power came afterwards to be much extended, so as to render it a most odious and unjust instrument in the hands of a despotic administration. Its process was summary and often iniquitous, and the punishment which it inflicted often arbitrary and cruel. It became particularly odious in the reign of Charles I., and was at length abolished by 16 Car. I. c. 10, to the great joy of the people.

STAR OF INDIA, ORDER OF.—An order of knighthood instituted by her majesty Queen Victoria, in order to commemorate her resolution of taking upon herself the government of the territories of India. It was also intended as a reward for conspicuous merit and loyalty, and was designated "the Most Exalted Order of the Star of India." The order consists of the sovereign, a grand master, twenty-five knights, together with such extra and honorary knights as her majesty, her heirs and successors, shall from time to time appoint. The viceroy and governor-general of India for the time being is the grand master and principal knight of the order. The order was instituted on the 25th of June, 1861, and the Right Hon. Charles John, Earl Canning, was appointed first grand master. Among the first knights created were Viscount

Gough, Lord Harris, General Lord Clyde, Sir George Clerk, Sir John Lawrence, Sir James Outram, and Sir Hugh Rose. Several native princes were also made knights; amongst these were the Nizam of Hyderabad, the Maharajah of Gwalior, Maharajah Duleep Singh, the Maharajah of Cashmere, the Begum of Bhopal, with some others. His Royal Highness the Prince Consort and His Royal Highness the Prince of Wales were also appointed each a knight of the order.

STATIONERY, *stay'-shun-ery*.—A general term for all articles connected with writing, such as paper, pens, ink, &c. The name arose from the fact that these articles were formerly sold by a person at a *station* or a *stall*.

Stationery Office.—In London, connected with the Government, is a department of the Treasury, established in 1786. It makes all contracts for the printing of parliamentary reports and papers, and supplies all the government offices with stationery.

Stationers' Company, *stay'-shun-erz*.—A corporation consisting, not of vendors of stationery in the present sense, but of booksellers and printers. The Company of Stationers is of great antiquity. They were formed into a guild or fraternity in the year 1403, the fourth year of Henry IV., and had their ordinances made for the good government of their fellowship. Their first hall was in Milk Street. About 1550 the company removed to a new hall, a certain St. Peter's College, the site of which cannot be precisely ascertained. The Company of Stationers do not appear to have had any authority granted them with relation to printed books, as an incorporated body, till they received their first charter in 1557, by the title of "The Masters and Keepers, or Wardens and Commonalty of the Mystery or Art of Stationers of the City of London," by which they obtained a right over all literary compositions, and might search houses for any books which they deemed obnoxious to the state or their own interest. The company then began to keep a register at their hall, in which were entered the title of every new book, the name of the proprietors, and the successive transfers of the copyright. By-laws were enacted by the company; fines were levied on members acting in contravention of their regulations; and at length, in 1662, these resolutions of the association were confirmed by the Licensing Act, which prohibited the publication of any book unless first licensed by the lord-chamberlain, and entered in the Stationers' register. In 1864 a new charter was granted to the company, for the purpose of securing the property in books, the chief object of which was to interpose the royal interdiction on any publication at variance with the government of Charles II. In 1691 this act was repealed; but whilst the liberty of the press was restored, the door was thrown open to infractions of literary property; and an owner of a copyright had no other protection than common law, and could only recover to the extent of the damage proved; that is, he could not adduce evidence of the tenth or twentieth part of the damage suffered, as he could not prove the sale of one copy out of twenty. In 1709, however, an act was passed, the chief features of which were—first, an obligation to deliver nine copies of any printed book to as many public libraries; and next, a provision for guarding, by severe penalties, the property of copyright for fourteen years. For a century and a half, the two universities of Oxford and Cambridge and the Stationers' Company held the monopoly of printing almanacs by letters patent of King James I. The company abused its privilege, and issued almanacs full of profligacy, ignorance, and imposture. In 1779 a bill was introduced into Parliament to confirm this monopoly, but it was opposed by Erskine, the famous lawyer, and the monopoly was abolished. The chief duties of the Stationers' Company at present are to enter the titles of all new publications on their books, and to register all assignments of copyrights.

STATUES, *stat'-yewz*.—Works of plastic art, executed in marble, bronze, clay, or other suitable material, so as to represent the whole figure

of a hero or other personage. There are both ideal and portrait statues. The ancient Greeks excelled in their ideal statues, wherein they represented their gods as serene and superior to all sensual impulses. Portrait statues appear to have been first set up at Athens to the memory of Harmodias and Aristogiton, the avengers of liberty and destroyers of the Pisistratidae. During the decline of the Roman empire, as servility and adulation became more and more common, a great number of statues were produced. The Romans called statues in Greek costume *statue pallinate*; in Roman costume, *togate*. There were, as there are now, three forms of statues—the sitting statue, the standing statue, and the statue on horseback, or equestrian statue. The practice of ornamenting buildings with statues was common with the ancients. (See SCULPTURE.)

STENOGRAPHY, *sten-og'-raf-e* (Gr. *stenos*, contracted, and *graphein*, to write).—The art of writing in abbreviations and with many arbitrary signs to denote whole syllables, words, and phrases, so that the writing may occupy but little room, and be executed with much more rapidity than is possible in the common mode. The invention of stenography has by some authorities been ascribed to Cicero, the famous Roman orator. The first English treatise on stenography was published in 1588, by Dr. Timothy Bright, and dedicated to Queen Elizabeth. It consisted entirely of arbitrary characters, each of which represented a word. But this system was crude and difficult of attainment, as, for its practical application, it required a remarkable tenacity of memory; and it was not until 1753, when the well-known reporter, Mr. Thomas Gurney, published his system, that stenography became an art calculated to be extensively useful. Since then many other systems have been published; and we may mention that during the last two centuries 100 works on the subject have appeared in England alone. We subjoin a few of the principles of stenography, according to one of the systems now in use:—The vowels are represented by points, a period standing for *a*, *e*, and *i*, and a comma for *o* and *u*. The single consonants of the short-hand alphabet amount only to sixteen, *c* and *z* being rejected, the former having both a hard and a soft sound similar to *k* and *s*, which are therefore used for it; *f* and *v* being similar in sound, are represented by the same character; as are *g* and *j*, and also *k* and *q*. The vowels are distinguished from each other by their position; for instance, should the period be placed over the top of a consonant, it signifies *a*; if placed against the side of a consonant, it becomes *e*. The various characters of the alphabet represent, when placed by themselves, a number of small words; the character which represents *g*, for instance, representing *God*, *give*, *go*, *good*. The characters of the alphabet also represent the first and last syllables of words; thus the character which represents the letter *b* also represents the first syllables *abs*, *obs*, &c., and the terminations *ble*, *ible*, and *bly*. In stenography, also, a mode of spelling is adopted which consists in omitting all the silent letters. (See PHONOGRAPHY.)

STEREOSCOPE, *sté-re-os-kope* (Gr., *stereos*, solid; *skopos*, view).—An instrument by means of which two pictures, taken from different points of view, are shown as one picture, and has the almost magical appearance of solidity.

The Theory of the Stereoscope was first explained by Professor Wheatstone, who showed that the image of every solid object painted on the retina is different with every different position of the eye. To illustrate this by means of the common camera obscura:—If the image of a picture be formed in this instrument, it is of no consequence in what position the instrument is fixed with regard to the picture, the relative position of all its points will be the same; but when a solid object, as a castle, or a tree, is depicted in the camera, the case is far different. It will then be observed that the relative position of the several points of the solid image will vary every time the instrument is shifted. It is precisely similar with the eye; a different picture is painted on the retina every time the position of the eye is changed. In obedience to this law, two slightly different pictures of any solid object will be simultaneously impressed on the two eyes. That this is actually the case, we may convince ourselves by placing a lighted candle about three feet in front of the face, and holding up the fore-finger between the candle and the nose; the finger and candle will appear on the contrary sides of each other when seen by each eye separately. Professor Wheatstone showed that the combination of two dissimilar visual images simultaneously depicted on the two retinæ, conveyed to the mind the perception of relief or solidity, and this fact he proved by explaining that if two pictures of an object be taken in the direction in which it would be viewed by the two eyes separately, upon these pictures being presented to the two eyes in such a way that their images might fall on corresponding portions of the retinæ, then the two views would be combined into one, and carry to the mind of the beholder the impression of actual solidity. The refracting stereoscope was subsequently described by Sir David Brewster, in a paper communicated to the Royal Society of Edinburgh. It would appear, however, that the dissimilarity of the pictures, as observed by each separate eye, is not a modern discovery. Two thousand years ago, it was recognized by Euclid and described by Galen. In 1593, Porta revived it; it was known to Leonardo da Vinci and Harris in 1775, and later, Drs. Smith and Porterfield were aware of the fact. But it was not till photography and the binocular camera were invented that accurate pictures, as seen by each separate eye, could be properly united so as to afford the idea of solidity.

Different kinds of Stereoscopes.—(1.) *The Reflecting Stereoscope*. Professor Wheatstone's original instrument, the reflecting stereoscope, is a very simple instrument. It consists of two small plane mirrors, placed vertically and at right angles to each other in the middle of a horizontal board, at the ends of which are fixed two vertical frames provided with grooves for holding two pictures drawn on cardboard. The eyes of the spectator are placed in front of the mirrors, so as to observe one of the pictures reflected from each, the card-boards being so adjusted in the grooves that the images shall exactly overlap each other, upon which the stereoscopic effect will be discovered. (2.) *The Refracting Stereoscope* consists of a pyramidal box of wood, metal, or other opaque material, blackened on the inside, and having a lid for the admission of light. The bottom of the box is usually formed of ground glass. The top of the box consists of two portions, in one of which is the right-eye tube, containing a semi or quarter-lens; the other, or left-eye tube, containing also a semi or quarter-lens. These lenses should be made to draw out, in order to suit long and short-sighted eyes. The stereoscopic pictures, or "slide," are generally mounted upon a thick card, and are fitted into a groove at the bottom of the box. Upon looking through the eye-tubes at the two dissimilar pictures upon the slide, they are found to be united into a single picture, possessing the appearance of relief and solidity.

STOCKS, *stoks'*.—A wooden machine, formerly much used to put the legs of offenders in, for the restraining of disorderly persons, or as a punishment for certain offences. The time when stocks were first used in England is not known; but they were in existence in 1350, during the reign of Edward III., as appears from a statute then issued; and in 1376 the commons prayed the king

for their establishment in every village. In some country places the stocks are still to be seen, and they have not wholly fallen into disuse.

STYLE, *stile*.—Is the manner of writing with regard to language, or the choice and arrangement of words. What is called the style of a writer or speaker is his characteristic manner of expression, determined principally by the man's own intellect and character. Style, in order to be ranked as good—that is, to be fit for serving the uses to which language is put—should obey the fundamental laws of grammar and rhetoric. Style should be characterized by perspicuity, animation, and elegance. Language is held to be perspicuous when it has not each of three faults:—it must not be obscure—that is, convey no meaning clearly; it must not be ambiguous—that is, convey more meanings than one; it must not be unintelligible—that is, convey no meaning at all. When language is adequate for the purpose of persuasion, it is said to be animated. Language, when elegant, gratifies the taste while exciting imaginative pleasure. In order to attain perspicuity, animation, and elegance in writing, the choice of words or phrases, the number of them, and the putting of them together, must be particularly studied.

STYLE, OLD AND NEW. (*See* CALENDAR.)

SUPPORTERS, *sup-port'ers*.—In Heraldry those figures which are placed on each side of the shield of arms of sovereigns, noblemen, knights of the Garter, Bath, baronets, &c., and appear, as the term implies, to support or hold up the same. According to most writers on the subject, supporters had their origin from tilts, tournaments, and joustings, where it was customary for the knights who engaged in these military exercises to have the shield of their arms adorned with helmets, mantlings, wreaths, crests, and devices hung upon the barriers, trees, tents, and pavilions near the place of contest. By the sides of these shields they were accustomed to place their pages, armour-bearers, and servants clothed in fancy dresses, sometimes making them appear like savages, Saracens, Moors, Sirens, &c., and sometimes disguising them in the skins of lions, bears, &c., in order to guard the shield and take an account of the name and arms of the knight who accepted the challenge. From these attendants, thus disguised and placed on guard, as keepers of their master's shields, heralds derive the use of supporters, which they say every one being noble or gentle by father and mother's side, who was admitted to a tourney, had afterwards a right to carry. The grant of supporters is by Garter principal king of arms solely, and with which the other kings of arms have nothing to do. It is limited to peers of the realm, knights of Bath, and princes of the blood royal at installations, unless granted by royal license from the monarch. King Edward III. was the first English monarch who used supporters to the royal arms. He bore, *dexter*, a lion gaurdant, crowned, or; *sinister*, an eagle, or falcon proper, crowned, or. The unicorn was first used as the sinister supporter of the royal arms by King James I.

SURNAME. (*See* NAMES.)

SWIMMING, *swim'-ming* (Sax., *swimman*, to swim).—The act or art of moving through the water by means of the limbs. The best place for

learning to swim is in deep water. The learner should always bear in mind that the stroke which is to sustain and propel him must be compound—that is, the action of the legs and arms should be simultaneous. The sweep of the arms and legs should always be made under water, and rather deeply so with the legs. The back should never be allowed to rise with the stroke, except as the whole body rises, but should be kept hollow, slanting, and steady. In making the stroke, the palms of the hands are placed together, and pushed straight forward like the bow of a boat, about an inch under the surface; at the same moment the knees are drawn up widely beneath the body. In the next motion the hands sweep back the water in such a manner as to bring the whole of the arms into action from the shoulders to the hands; at the same moment the legs are thrown back, and the feet vigorously pushed against the water beneath. It should be remembered by the learner that the principal propelling power is in the legs, the arms and hands being principally used for sustaining the head above the surface. When the learner has mastered the elements of the art, turning in the water, swimming on the back, and floating are of comparatively easy acquirement. The ordinary speed of a swimmer ought to be about three miles an hour.

SWORD, *sord* (Sax., *sword*).—An offensive weapon of steel, used either for cutting or thrusting, which has been known under different forms from the earliest ages. The manufacture of this weapon has been carried on to a great extent in this country for many centuries; but the swords of Italy, Spain, and more especially those of most Eastern nations, took the first rank. The Damascus blades are most noted for their extraordinary keenness of edge and flexibility. In the Middle Ages, Toledo, in Spain, and Milan, in Italy, had a great reputation for swords of the finest quality. A highly ornamented sword is frequently presented as a public testimonial to a distinguished general.

SYLPHS, *sil'fs*.—In old Poetic Mythology, elemental spirits of the air, holding an intermediate place between material and immaterial beings.

SYMPHONY, *sim'-fo-ne* (Gr., *sym*, with *phone*, voice).—The ancients applied this term to a union of concerted sounds, and it was used in contradistinction to antiphony, which was employed when half the concertants were in the octave, or double octave, to the other half. In modern music, however, the word symphony is applied to certain instrumental compositions containing various movements, and designed for a full band. As specimens of this species of composition, we may mention Beethoven's "Sinfonia Pastorale." Mendelssohn, Mozart, and Haydn also excelled in the composition of symphonies; and many modern composers have produced admirable works of this character.

SYNDIC, *sin'-dik* (Gr., *syn*, with *dike*, justice).—An official title borne by various municipal and other dignitaries. In the University of Cambridge, the name is given to members of committees of the senate appointed for special districts.

SYNDICATE, *sin'-di-kate*.—A name assumed by some modern financial associations.

SYNONYM, OR SYNONYME, *sin'-o-nim* (Lat.).—A name, noun, or other word having the same signification with another.

SYRIAC LANGUAGE AND LITERATURE, *sir'-i-ak*.—The Syriac language is an Aramaic dialect, belonging to the northern branch of the Semitic family of languages. There are 22 characters in the alphabet. In writing, various forms of character are used, all of them of a kindred origin, coming from the same source, whence are derived the other Semitic alphabets. The Syriac became a literary

language in the Christian schools of Mesopotamia. It includes many Greek and Latin words, chiefly nouns. The ancient Syriac is still the sacred language of the scattered bodies of Christians in Asia representing the ancient Syriac church; but it is very imperfectly understood, even by the priests. The oldest Syriac book existing is the Peshito, a translation of nearly the whole Bible.

SYNTAX. (See GRAMMAR.)

T.

T, *te*, is the twentieth letter and sixteenth consonant of our alphabet. It is formed by a quick and strong expulsion of the breath through the mouth upon a sudden drawing back of the tongue from the fore part of the palate, with the lips at the same time open. As *t* and *d* are so nearly related, it is natural that they should take each other's places, as is the case also with *t* and *s*, on account of the similarity of their pronunciation. *T* is also interchangeable with *th* and *st*, with *c*, *p*, *l*, and *nd*. It is frequently dropped at the end of words and also in the middle of words when flanked by vowels. *Ti* before a vowel has the sound of *shi*, and is often changed to *s*, *sh*, *ch*, &c. When, however, *ti* is preceded by *s*, as in question, it retains its proper sound. *T*, as a numeral, stood for 160, and with a dash over it for 160,000. (For the abbreviations of this letter, see ABBREVIATIONS.)

TABARD, *ta'-bard*.—A garment now worn only by heralds, fitting closely to the body, with wide sleeves, and embroidered with armorial bearings.

TABLE-TURNING.—A favourite exhibition by the Spiritualists, who gathered a circle of persons round a large table, which soon turned about and moved from its position. The motive power was attributed to spirits, but scientific investigators showed that involuntary muscular action was the cause.

TABOO, *ta-boo'*.—A word used among the South-Sea Islanders to express something consecrated, sacred, not to be touched. Hence it has come to be applied in this country to something prohibited or interdicted.

TABOR, *ta'-bor*.—A small drum, usually forming an accompaniment to the pipe. They are both played by the same performer, the tone of the pipe being regulated by the fingers of the left hand while the tabor is played with the other hand.

TAFFETY, *taf'-fete*.—An old name for various kinds of silk fabrics.

TAJ MAHAL, *taj ma-hal'*.—A very large and beautiful mausoleum erected at Agra, a city which is now the seat of the government of the North-western provinces of Bengal, by the Emperor Shah Jehan, to commemorate the virtues of his favourite consort, whose original name was Arjammed Banoo, which, according to Oriental usage, was changed on her elevation to that of Mumtazee Yumane, signifying "the paragon of the age."

TALBOTYPE. (See PHOTOGRAPHY.)

TALENT, *tal'-ent* (Gr., *talanton*).—A term

originally applied by the ancient Greeks to a balance for weighing, afterwards to the substance weighed, and finally to the weight itself, the monetary system being based upon the weight of silver, the names of the weights employed came to be used as money values. The weights of the different talents in terms of our modern standards is a matter of great uncertainty. The gold talent mentioned in the Scriptures is supposed to have been equivalent in weight to 250 lbs., and the silver talent to 125 lbs. One gold talent is equal to two silver talents.

In Ordinary Language, the word is applied to a special intellectual ability, indicating a treasure intrusted to the possessor.

TALISMAN, *tal'-is-man* (Arab.).—Among Eastern nations, a figure cut in metal, stone, &c., and made with certain superstitious ceremonies, and under certain astrological circumstances. Talismans were believed to be possessed of certain virtues protecting the wearer from disease, rendering him invulnerable in battle, and the like. (See AMULET.)

TAMBOURINE, *tam-bo-reen'*.—A musical instrument consisting of parchment distended on a hoop hung with a set of bells. It is beaten with the knuckles, and from very remote times has been a favourite instrument with dancers, and is now an essential to "nigger minstrels."

TAMIL, OR **TAMIR**, *ta-mil'*.—The name of a language of Hindostan, the oldest of what are known to philologists as the Dravidian idiom.

TARGET, *tar'-get* (Sax. *targ*).—A mark to shoot at. The best practice-targets are made of cast iron, about six feet high, twenty-four inches wide, and two or three inches thick. There are many other kinds of targets, some of which, by means of electricity, show where the balls strike them upon the face of a dial at the side of the person firing. The targets used in archery practice are made of straw, and marked with concentric circles of various colours. (See ARCHERY.)

TARSIA WORK, *tar'-se-a*.—A beautiful kind of marquetry, the inlaid pieces of coloured wood representing figures and landscapes, and generally used as cabinet work. It is made in Italy, chiefly at Sorrento and Perugia.

TASTE, *taist*.—In Physiology, is one of the five special senses by which are perceived certain impressions made by particles of bodies, dissolved by the saliva in the mouth. The object clearly is to take cognizance of matters about to be swallowed, and to act as sentinels to the alimentary canal, at the entrance of which they are situated. The organ of taste is the tongue, and the seat of sensibility is the mucous covering of

its surface. The precise mode in which the nerves of the tongue are stimulated is not understood. This sense is much more acute in some persons than others, and may be much improved by training, as in the case of wine-tasters. It is diminished or lost in febrile or other disorders which alter the condition of the mucous surface of the tongue and mouth.

In *Æsthetics*, taste is that faculty of the human mind by which we judge of the beautiful and proper, and distinguish them from the ugly and unsuitable. Much difference of opinion has prevailed respecting the nature of this faculty. By some it has been regarded as the result of caprice or fashion, without any uniform or permanent principles on which to ground its decisions; by others, a compound of various complex elements, in the resolution of which into its component parts several ingenious attempts have been made. It seems, however, to be, as stated by Burke, "a separate faculty of the mind;" "a species of instinct, by which we are struck naturally and at the first glance, without any previous reasoning, with the excellences or defects of a composition."

"TATTLER," *tat'-ler*.—A famous periodical publication, the precursor of the "Spectator," projected by Sir Richard Steele in 1709, and edited by him, under the pseudonym of "Isaac Bickerstaff." Addison was one of the principal contributors.

TATTOOING, *tah-too'-ing*.—A custom of savages, especially the natives of the Pacific islands, of marking the skin with figures, by means of incisions or punctures, and the insertion of colouring matter.

TAZZA, *tat'-za* (Ital.).—A name given to a flat cup with foot and handles, or a shallow vase. Very beautiful articles of this kind in ceramic ware and in glass have been produced.

TEETOTALLERS.—A name, respecting the origin of which various suggestions have been made, assumed by the earlier public advocates of total abstinence from alcoholic drinks.

TELL, WILLIAM, LEGEND OF.—Modern criticism has destroyed all faith in William Tell, the hero of Swiss legend, as a real personage. The first allusion to it is in a chronicle, *Das weisse Buch*, composed about 1470, nearly two centuries after the date of the national uprising in which Tell was supposed to have taken part. The *Tellenleid* appeared about the same time, and in 1540 the legend was repeated in the *Hübsch Spyl* of Uri. Later in the same century *Ægidius Tschudi* published his *Chronicon Helveticum*, wherein he seems to have gathered scraps of tradition wherever he could find them, to have expanded them, and to have invented names, surnames, and even dates; and later writers, professing to be historians, repeated his fictions. The Tell legend is really the embodiment of a wide-spread Aryan myth. About 1175, the Persian poet Ferid-ed-Din Attar sang of a king who shot an apple from the head of his favourite. In the *Danish Chronicle*, Saxo Grammaticus (about 1170), relates how Toko shot an apple from the head of his son, by order of King Harold Bluetooth, and mentions the incident of the second arrow so prominent in the Tell legend. In the *Edda*, Eigel the marksman is made by King Nidung to shoot an apple from the head of his son, and allusion to the second arrow again occurs.

TEMPLE.—The Inner and Middle Temple, between the Thames and Fleet Street, adjoining the western limit of the city of London, are two

Inns of Court. The name is derived from the Knights Templars, who had the great London house of their order on this spot, and built the fine old circular church, which, with a later addition, is still used as a place of worship.

TENAILLE, *ten-il'e* (Fr.).—In Fortification, a rampart raised in the main ditch immediately in front of the curtain between two bastions. It usually consists of three faces, of which two have the directions above stated, while the third forms a curtain, which is parallel to that of the enceinte.

Tenaillon, or Great Tenaile, is a species of exterior work constructed on each side of the ravelins, like the lunettes, to increase the strength of the ravelins, procure additional ground beyond the moat, or cover the shoulders of the bastions.

TENNE, *ten-ne* (Span., *tanetto*, a chestnut).—In Heraldry, a colour not often used in coat armour. It is the same as tawny, and is composed of red, yellow, and brown. By some heralds it is called brusk, and in engraving it is expressed by diagonal lines, drawn from the sinister chief point, and traversed by horizontal ones.

TENNIS, *ten'-nis* (Fr., *tenir*, to hold).—A game in which a ball is kept up, or driven continuously to and fro, by several persons striking it alternately, either with the hand or a small bat, called a racket, the object being to keep the ball in motion as long as possible, without allowing it to fall to the ground. This game was very popular with the English nobility in the 16th century, and continued to be so down to the reign of Charles II. Lawn tennis, introduced a few years since, is now the most favourite of outdoor games, and ladies take part in it.

TENOR, *ten'-or* (Lat., *tenere* to hold).—The adult male voice, which lies between the alto and bass. Its compass extends from C, the second space in the bass, to G, second line in the treble. The term is derived from the fact that in the ancient part compositions the tenor sustained or held the principal air. The name of tenor is also applied to a large species of violin.

TENSE, *tens* (Lat., *tempus*).—That particular modification of a verb which expresses the time at which an action is conceived as taking place. The three primary or simple tenses are the present, past, and future; but these admit of various modifications in different languages. In English there are six tenses usually recognised: namely, the present, imperfect, perfect, pluperfect, future, and future perfect.

TENT, *tent* (Lat., *tentorium*, from *tendere* to stretch).—A kind of portable room, constructed of canvas, supported by poles, and secured by ropes fastened to stakes in the ground, now chiefly employed by soldiers when on active service. The patriarchs of the Jewish race were dwellers in tents. The Persian monarchs had splendid tents when travelling, or in the hot summer months. The Roman armies had tents, or *tabernacula*. In the mediæval times, princes and wealthy nobles had large tents divided into several compartments, having silk and damask hangings and golden cords.

TESTUDO, *tes'-tu-do*.—In Roman warfare, foot soldiers, in advancing to an attack, held their shields over their heads, to protect themselves from missiles. The shields being close

together, a scale-like covering was formed over the whole body of men, and was described as a tortoise, *testudo*.

THANE, *thaine* (Ang.-Sax., *thegn*, to serve).—A designation originally applied to the minister or servant of a king or chief; and as these were often persons of influence and power, it came to signify a particular rank or dignity. It seems at one time to have been applied to all landed proprietors below the rank of earl and above that of alderman. There were also superior and common or inferior thanes. In Scotland, the title seems to have been higher than in England, being attached to the territory of a county.

THEATRE, *the'-a-tre* (Gr., *theatron*, a seeing place).—A building in which plays are represented. The earliest theatres of which we have any record were those in which the plays of the first Greek dramas were performed, and were generally very rude wooden structures, little more, indeed, than scaffoldings. The first permanent stone structure of the kind was the theatre of Dionysius, begun to be erected by the Athenians, 500 B.C., but not completed till about 250 years afterwards; and in the meantime many theatres had been erected in other parts of Greece, Sicily, and Asia Minor. The seats for the spectators rose one above another in arcs of concentric circles, each row forming nearly two-thirds of a circumference; and the space in the centre, corresponding nearly to the modern pit, was known as the orchestra, and was appropriated to the chorus. Beyond that was the proscenium or stage. There was no scenery properly so called, but the scena, or back wall, was architecturally decorated, so as partially to represent the locality in which the action was going on. There was no roof to the building, but there were covered porticoes as refuges from rain, and awnings were sometimes used to ward off the heat of the sun, for the performances always took place in daylight. One of the first English theatres was the Globe, where the plays of Shakespeare and his contemporaries were performed. The building was hexagonal, with an uncovered court in the middle, and around three sides enclosed boxes or "rooms." The stage was strewn with rushes, and concealed by curtains in the intervals of performance. The largest and finest of modern theatres is the New Grand Opera of Paris, opened to the public in January, 1875. The stage is about 100 feet in width by 220 feet in depth, and 700 singers can be grouped upon it; but the sitting accommodation for the audience is smaller than that afforded by many of the London and American theatres. In China, every little village has a theatre, and there are several in each of the large towns; but no scenery is used, and there is no sitting accommodation for the spectators. In Japan, the stage has scenery, and the audience are supplied with seats.

THEOGONY, *the-og'-o-ne* (Gr. *Theos*, and *gone*, generation).—A term applied in classical mythological literature to the record of the descent and relationship of the various deities. Hesiod has left a poem under this title, in which he gives an account of the birth and parentage of the Grecian deities.

THEOREM, *the'-o-rem* (Gr., *theorema*; from *theomai*, I perceive).—Properly a thing to be looked at or seen; and the term is used in mathematics to signify something that requires

to be proved, in opposition to a problem, which is something that requires to be done.

THEORY, *the'-o-re* (Gr., *theoria*, contemplation, speculation).—A term which, in its scientific sense, denotes the real or hypothetical approaches which are made to the discovery of some law of nature, real or supposed. It is frequently, however, used in the sense of mere knowledge, as opposed to practice, or the application of it.

THERMIDOR, *ther'-mi-dor* ("the hot month").—The name given in the calendar of the French Revolution to the 11th month, which lasted from 19th July to 18th August.

THESMOPHORIA, *thes-mo-for'-e-a*.—A Greek festival held exclusively by women, especially at Athens and in Arcadia, in honour of Demeter (the Ceres of the Romans), as *Thesmophoros*, "the law-giver." At Athens the festival lasted three days: on the first there was a procession, on the second a fast, on the third unrestrained and licentious enjoyment.

THIRTY-YEARS' WAR, *thir'-te*.—A memorable struggle carried on in Germany between 1618 and 1648. Its origin is to be traced to the changes which resulted from the Reformation, and was conducted between the emperor and Roman Catholic states of Germany and the Protestant states, with their allies, Denmark, and afterwards Sweden and France. It is renowned for the victories of Wallenstein and Gustavus Adolphus of Sweden, and was terminated by the peace of Westphalia.

THOROUGH BASS. (See BASS.)

"THOUSAND AND ONE NIGHTS." (See ARABIAN NIGHTS.)

THURSDAY, *thur'-dai*.—The fifth day of the week, so named by the Saxons in honour of their god Thor, to whom this day was consecrated. It was the *Dies Jovis* of the Roman calendar.

TIERCE, *teer-se*.—In Heraldry, a term indicating that the shield is divided by lines into three equal, or nearly equal parts.

TIME.—In Music, time is the measure of sounds with regard to their duration, and is of the greatest importance. It may be divided into two principal divisions—common and triple; these may again be divided into simple and compound. Simple common time is expressed by the letter C, either plain or with a line drawn through it, and generally contains four crotchets in a bar. Simple triple time is of three kinds, marked by the figures $\frac{3}{4}$, $\frac{3}{8}$, and $\frac{3}{2}$; while of compound triple time there are only two species, viz., $\frac{3}{4}$ and $\frac{3}{8}$.

"TIMES" NEWSPAPER.—This great London daily paper was first published in 1785, with the title of the *Daily Universal Register*. On the first of January, 1788, Mr. John Walter, the proprietor, changed the name to the *Times*. It was first printed by steam-power (the first application of the steam-press) on the 28th of November 1814.

TITTLE, *tit'-l* (little horn).—Several of the Hebrew letters were written with small points, which served to distinguish one from another. To change a small point of one letter, therefore, might vary the meaning of a word, and destroy the sense.

TOGA, *to'-ga* (Lat.).—The name given to the principal outer garment worn by the Romans. As only free-born citizens were allowed to wear the toga, it was considered an honorary garment, and at the same time distinguished the Romans from other nations. For this reason the Roman people were called *Gens togata* and *Togati*. The toga was thrown over the left shoulder, and passed under the right arm, which thus remained free. It was sewed together from the breast downwards, and as the Romans wore no pockets, the hollow in the folds of the breast, called *sinus*, was used to put small articles in. The rank of the citizen was indicated by the colour, the fineness of the wool, and the ornaments attached to his toga. The *toga pretexta* was worn by all superior magistrates and priests; it was ornamented with a purple stripe. This toga was also worn by boys and girls: by the former till they were seventeen years of age, and by the latter till their fourteenth year; after which periods the former changed it for the toga *virilis*, which was the simple white toga.

TOISON D'OR. (See GOLDEN FLEECE.)

TOMAHAWK, *tom'-a-hawk*.—A war hatchet used by the American Indians. The handle is frequently hollowed, serving as a tobacco pipe.

TONE, *tone*.—In Music, literally a fixed sound of a certain pitch; but the term is often used incorrectly to signify the distance between two sounds; as in the *major* and *minor tones*. In speaking of the sound or voice of any instrument, with reference to its quality, the word *tone* is also used; as a rich tone, a full tone, or a mellow tone.

TONIC, *ton'-ik*.—In Music, the initial note of a diatonic scale, known also as the key-note.

TONIC SOLFA SYSTEM, *sol'-fa*.—A method of musical notation, in which letters of the alphabet are used instead of the ordinary notation by crotchets, quavers, &c. Salman, a writer on music, suggested such a mode as far back as 1672; but the present system was introduced by Miss Glover of Norwich and the Rev. John Curwen. It is now extremely popular. A Tonic Solfa Association was formed in 1853, and a Tonic Solfa College in 1862.

TOPES.—Buddhistic monuments intended for the preservation of relics. They are in many cases of great extent, and the interiors are highly ornamented.

TOPOGRAPHY, *to-pog'-ra-fe* (Gr., *topos*, a place; *grapho*, I write).—A term applied to the science of describing a country, a place, &c. Rivers, rivulets, mountains, hills, forests, rocks, roads, especially inhabited places, bridges, &c., are considered proper subjects for topography. Maps which treat of all these subjects, and even show the variety of the soils, &c., are called topographical maps.

TORQUE, *tork* (Lat., *torquere*, to twist).—A kind of necklace formed of wire of gold, or other metal, twisted together. The Celts considered it a national ornament; and in several of the nations of antiquity it was regarded as a mark of distinction. The Romans adopted it from the Gauls, and presented it as a reward for valour.

TOURNAMENT, TOURNEY. OR **JOUST**, *toor'-na-ment*, *toor'-ne*, *joust*.—Words derived from the French, which, in the days of

chivalry, were applied to a kind of combat, wherein warriors engaged for the purpose of exhibiting their courage and skill in arms. The introduction of the tournament into England was due to the Normans, who brought it with them from France, where it reached its full perfection as early as the 9th and 10th centuries. The Normans were passionately fond of this amusement. Under Stephen it is said to have been first practised in England; but although forbidden by Henry II., and discountenanced by the Church, it revived again, and became firmly established during the reign of Richard Cœur-de-Lion. The most flourishing era of the tournament was, both in England and France, during the 13th and 14th centuries, and it was not altogether abandoned till near the close of the 16th century. In the tournament blunted weapons were used, and heralds were frequently dispatched to different courts, inviting all brave knights to prove their chivalry. Certain qualifications of birth were required to gain admission to the tournament. The place of combat was the lists, a large open space surrounded by ropes or a railing. Around the lists galleries were erected for the spectators, among whom sat the ladies, the supreme judges of tournaments. Each knight was attended by his squires, who furnished him with weapons, or raised him if unhorsed. At the conclusion of the sports the prizes were delivered to the successful knights by the queen of beauty, who had been chosen by the ladies. The joust differed from the tournament in being a single combat between two knights, whilst the tournament was carried on between two parties of cavaliers. There were two kinds of jousts—the *joûte à l'outrance*, or the joust to the utterance, or mortal combat, usually between two knights of different nations, and the *joûte à plaisance*, or joust of peace, which frequently took place after a tournament. As chivalry declined, tournaments gradually died out.

TRANSEPT, *tran'-sept* (Lat., *trans* and *septum*).—The cross part of a cathedral, or the two arms, as it were, of the cross upon which the plan is laid out, extending on the north and south sides of the area between the nave and the choir.

TRAVERSES, *trav'-ers-es*.—In Fortification, are masses of earth raised at intervals across the terreplein of a rampart, or across the covered way of a fortress. They serve to protect the men and guns against the effects of a ricocheting or enfilading fire, besides being used as entrenchments behind which the defenders may pour forth an annoying fire upon the besiegers.

TRENCH, *trensh* (Fr.).—In Fortification, an excavation in the ground. The depth is usually three feet, the width eighteen feet; the length is often considerable. The excavated earth is thrown up on one side to serve as a kind of parapet to protect the defenders from the view and the fire of the enemy.

TRICOLOUR FLAG.—A flag divided into three stripes of red, white, and blue, adopted by France in 1789.

TRILOGY, *tril'-o-je*.—In Greek literature, a series of three tragedies, each complete in itself, but linked together by the progression of incidents.

TRINITY COLLEGE, OXFORD.—This college was founded in 1554, by Sir Thomas

Pope, on the site of Durham College. It consists of a president, 12 fellows, and 14 scholars, professorships and scholarships being open, and the latter of the value of £80 annually.

TRINITY COLLEGE, CAMBRIDGE.

—A college founded by Henry VIII., in 1546, out of the revenues of several older societies. It is the greatest of all the Cambridge colleges, and the largest college in the world. There are a master, 60 fellows, 74 scholars, and 16 sizars. The scholarships have a yearly value of from £30 to £100; the sizarships of about £70, and there are six minor scholarships (£75 and £50) tenable for three years, and 16 exhibitions for scholars from various public schools.

TRINITY HALL, CAMBRIDGE.—

Founded in 1350 by Bishop Bateman, of Norwich, and especially designed for the study of law. It has 13 foundation fellowships, four law studentships (£50) for three years, 16 scholarships (£21 to £70), and two exhibitions of £70 for one year.

TRINITY COLLEGE, DUBLIN. (See DUBLIN UNIVERSITY.)

TRIPOD, *tri-pod* (Gr., three-footed).—Any article of furniture resting on three feet. The Pythian priestess Delphi sat on a tripod, while announcing the utterances of the famous oracle.

TRIUMPH, *tri-umf* (Lat., *triumphus*).

—A solemn procession for the purpose of celebrating a victory. Although common to all warlike nations from the very earliest periods of history, those great assemblages never formed so prominent a feature in the annals of any people as among the Romans. There were two kinds of triumph—the great triumph and the inferior triumph, or ovation. Neither could be celebrated save by order of the Senate.

TRIUMPHAL ARCH. (See ARCH, TRIUMPHAL.)

TROGLODYTES, *trog'-lo-dites* (from Gr., *troglo*, a cave, and *dytes*, to enter).—The name given by ancient writers to tribes of men who lived in caves. Several such tribes are mentioned as inhabiting northern Africa, and parts of the Caucasus.

TROMBONE, *trom-bone*.—A wind instrument of brass, which produces, by means of sliding tubes, great depth and power of tone. Some writers on music suppose it to be identical with the ancient sackbut.

TROUBADOURS. (See FRENCH LANGUAGE AND LITERATURE.)

TRUMPET, *trump'-et* (Fr., *trompette*).—A musical instrument of brass or other metal, which has been common in most nations under different forms from the remotest ages. The trumpet proper consists of a tube expanding at the end at which the sound issues into a bell-like shape.

TUDOR ARCHITECTURE, *tu'-dor*.—

In its general signification, is that style of architecture which prevailed in England during the Tudor dynasty. The styles, however, to which this term is applied are many and widely different, including the Late Perpendicular Gothic, the Mixed or Elizabethan style, in which Italian details were introduced in buildings otherwise Gothic, and the Italian, as practised by Inigo Jones and his contemporaries. Some writers

would divide the style thus denominated into early and late Tudor, the former term including the Late Perpendicular style. The reign of Henry VII. introduced a new mode of living, and a new style of domestic architecture. The thickness of the walls was reduced, size of the windows enlarged, and the battlements retained rather for ornament than use. The plan of the larger mansions of this period was quadrangular, comprising an inner and base court, between which stood the gate-house. On the side of the inner court, facing the entrance, the principal apartments were placed, and were connected with a gallery for amusements, running the whole length of another of the sides of the quadrangle. The materials of which such mansions were built were either brick or stone, and sometimes both combined; the main building being of brick, and the dressings of freestone. Among the more striking peculiarities may be mentioned the gate-houses, the numerous turrets and chimneys, the beautiful bay and oriel windows, the roof, ceiling, and panelled wainscot round the internal walls. During the reign of Elizabeth the Italian style of art rose into favour in this country, and produced a style of architecture in which Italian details were mingled with Gothic features and designs.

TUESDAY.—The third day in the week, named after Tiw, the Anglo-Saxon god of war. In the Roman calendar it was named Dies Martis, from Mars.

TUNIC, *tu'-nik* (Lat., *tunica*).—A garment made of cloth, worn by the ancient Romans and in the East. It extended to, or below the knees, and was fastened round the waist with a girdle slightly ornamented. It was also used by the Saxons; indeed tunics were commonly worn in this country until the end of the 15th century. The term is still applied to the coat worn by most soldiers of the British army.

TUNING, *tu'-ning*.—The art of adjusting the several sounds of a musical instrument, so as to produce as nearly as possible a correct scale, as well as that of making two or more instruments agree with each other, and thus enable them to be played in concert.

TUNING-FORK.—A steel instrument consisting of a handle and two prongs, which, when struck against the table or some hard substance, produces a certain fixed note by which the pitch of voices or instruments is determined. It was invented by Mr. John Shore, sergeant trumpeter to George I. There are forks of various tones, but the A and C forks are most commonly used.

TURANIAN FAMILY OF LANGUAGES, *tu-rai'-ne-an*.—

One of the three great families of languages into which modern philology has divided all the spoken and dead dialects of the world. The term Turanian is used in opposition to Aryan, and is applied to the nomadic races of Asia as opposed to the agricultural or Aryan races. The Turanian group of languages consists of two great divisions, the northern and the southern. The northern comprises five sections of dialects—the Tungusic, Mongolic, Turkic, Finnic, and Samoyedic. The southern, which occupies the south of Asia, comprises the Tamulic, or the languages of the Deccan; the Bhotiya, or the dialects of Tibet and Bhotan; the Taic, or the dialects of Siam, and the Malaic, or the Malay and Polynesian dialects.

TURBAN, *tur'-ban*.—A kind of head-covering worn by the people of many Eastern nations, consisting of a piece of cloth wound round a cap in plaits. Turbans vary in form in different nations, and in the different classes of the same nation.

TURKISH LANGUAGE AND LITERATURE.—The dialect of the tribe of Turkish or Tartar origin, which for more than 500 years has been dominant in European and Asiatic Turkey (and distinctively known as the Osmanli Turks), is the most important of the languages spoken by the different tribes of Tartar origin which form a principal division of the great Turanian family. The peculiarities of the Turkish language are such as naturally result from its position and its culture under the influence of Arabic and Persian. The vocabulary abounds in Arabic and Persian elements, which also appear in its grammatical construction. It is in fact, a dialect made up of materials derived from three totally distinct families of language—the Turanian, Semitic and Aryan, or Indo-European. The Arabic alphabet is generally adopted, but sometimes the Armenian alphabet, which represents the sounds much more faithfully, is adopted. There are nine vowels—four hard, *a, o, u*, and a peculiar guttural *i*, and five soft, *ä* (*a* flat), *e, i, ö* (French *eu*), and *ü* (French *u*). There are no proper articles; the adjective is uninflected, and the nouns have no distinction of gender, and their plurals are formed by the addition of *lar* or *ler*. The verbs present some remarkable peculiarities in their conjugation. The literature of the Western or Osmanli Turks is abundant in quantity, but contains little that is original or distinctively national in style and spirit. Persian material and Persian taste are everywhere apparent. The most flourishing period in the 16th century during the reign of Solymán the Magnificent and his son Selim II., whose important works on history and jurisprudence appeared. Saad-ed-Din, one of the official annalists, is noticeable for the dignity and philosophical spirit of his history of the Ottoman empire to the year

1526. About this time, too, Bakè, the greatest of Turkish lyric poets, produced the works of which his literary countrymen are justly proud. The next century produced several writers of great ability, especially Nebi, the poet, and Hadji Khaifah, a man of vast learning, historian, geographer, and biographer, whose history of Arabic, Persian, and Turkish literature (written, it may be said, not in Turkish, but in Arabic), is a chief authority for its subject. The 18th and present centuries have produced many writers of ability on a variety of subjects, but not of super-eminent merit.

TURQUOISE, *tur'-koise'*.—A hydrated phosphate of aluminum, valued as a gem. It is found in Khorasan in Persia, and some specimens have been obtained in Arabia. An inferior variety is found in some parts of Silesia and Saxony. The most highly prized are of a fine blue colour. Antique cameos and intaglios of turquoise are preserved in the Vatican at Rome. In Oriental countries it is much employed in ornamenting girdles, swords, harness, &c., and is believed to have the power of protecting its wearer against contagion, or when he is afflicted with disease, of changing colour and becoming pale. The Shah of Persia is supposed to have in his possession all the finest turquoise gems in existence, as only those of inferior quality are allowed to be taken out of the country.

TWINS.—Two children born at the same time and of the same mother. Various instances have been known of a junction of the two bodies, as in the case of the Siamese twins, and the two females known as the "Two-headed Nightingale," who have been objects of public exhibition.

TYRANT, *tí'-rant*.—In early Greek times this title was given to any man who governed with irresponsible power, and did not bear its modern meaning, which indicates arbitrary oppression and cruelty.

TYRE, ERA OF, *tíre*.—The year of this era was similar to the Julian year, and the months the same as those of the Greek era.

U.

U, *yu*, is the twenty-first letter and fifth vowel of the English alphabet. It bears a close resemblance to the vowel *o*, being pronounced like it by a round configuration of the lips, but in the case of *u* with a greater extrusion of the under lip. The sound of *u* is short in *tun, tub, must*, but long in *tune, tube*, &c. In some cases it is acute rather than long, as in *flute, brute*; in others, it is obscure, as *nature, venture*. At the beginning of words it is often sounded as if preceded by *y*, as in *union, university*. It frequently interchanges with *a, e, i*, and *o*. *U* and *V* were long regarded as one letter, and were used indiscriminately the one for the other; but in the beginning of the 16th century they came to be distinguished, and *u* has since been regarded as a vowel, and *v* as a consonant. (See **ABBREVIATION**, &c.)

UHLANS, *ooh-lahns'*.—Lancers in the German army, being effective light cavalry troops.

UNCIAL LETTERS, *un'-se-al* (Lat., *uncia*, an inch).—Characters used in some ancient

manuscripts. They are of a round form and about an inch in depth.

"UNCLE TOM'S CABIN."—The title of a very powerful story, illustrating the horrors of slavery in the southern states of America, written by Mrs. Harriet Beecher Stowe, first published in a newspaper, and issued in a complete form in 1850. The sale in America and this country exceeded that of any book of modern times. Countless editions appeared, and it was translated into nearly every European language. Unquestionably it was one of the great stimulants of the public feeling exhibited in the War of Secession.

UNICORN, *yu'-ni-korn*.—A fabulous animal resembling a horse, with a single horn issuing from the middle of the forehead, and familiar as one of the supporters of the royal arms of England. The unicorn of the Old Testament is a mistranslation of the Hebrew word *reem*, which most probably denoted a kind of wild ox with two horns. The narwhal is commonly known as the sea-unicorn.

ULSTER KING-OF-ARMS.—The chief heraldic officer of Ireland. The office was created by letters patent from Edward VI. in 1552.

UNISON, *yu'-ne-zon* (Lat., *unus*, one; *sonus*, sound).—The exact agreement of two sounds, proceeding from an equality in the number of vibrations made in a given time by two sonorous bodies.

UNITIES, THE.—In the ancient and the modern French drama, the “unities” of time, place, and action were insisted on. There should be no shifting of the scene from place to place, the whole scene of events should occur in one day, and nothing should be admitted irrelevant to the development of the single plot.

UNIVERSITIES, *u-niv'er'-se-teez* (Lat., *universitas*, the whole of anything, as contrasted with its parts).—In its modern signification, a university usually denotes an establishment for the purpose of instruction in some or all of the most important branches of science and literature, and having the power of conferring certain honours or dignities termed degrees. This term, like many others, has undergone various modifications of meaning until its original signification has quite disappeared. The oldest word for an institution of higher education was *studium*, or *studium generale*, terms employed in the 12th and 13th centuries; and *universitas* was applied to a corporation, or a number of persons associated together for a common purpose. The oldest universities arose spontaneously during the 12th and 13th centuries. About the beginning of the 12th century, Paris became the resort of learned men, who, by means of teaching and public lectures, infused new life into the existing schools. The continually increasing number of teachers and students rendered it expedient to adopt some form of government, in order that their labours might be carried on with some degree of regularity; and accordingly, the university appears to have been incorporated towards the end of the 12th century. In course of time it became the most distinguished place of education in Europe, and was resorted to by students from all parts. In 1453 the number of students amounted to 25,000, and when Joseph Scaliger was a student, it had reached 30,000. When the teachers and students came to form one body, the division into nations originated. Each nation comprised all the professors and students from certain countries, and formed an independent body by itself, having its own laws, funds, and government. Degrees are believed to have originated in Paris about the second half of the 12th century. The first teachers had taken office without invitation or permission from any one; but subsequently the members of the university were careful that their lecturers should be persons well qualified. Hence examinations were instituted, and those who were found qualified received a formal permission to lecture publicly. At first the teachers delivered their lectures in such rooms as they could for hire or otherwise obtain the use of; but afterwards halls or schools for the use of their teachers were provided by the several faculties. Originally the teachers were supported entirely by the fees received from the students, and those that were in high repute sometimes made large sums. Afterwards teachers sometimes received presents from the magistrates of the town to induce them to remain in it, and at a later period a fixed salary was given to them.

The great concourse of students in early times rendered it difficult for them to obtain lodgings, and gave rise to exorbitant demands on the part of the townsmen with whom they resided. To remedy this inconvenience, taxers were appointed to determine the amount of rent to be paid, and subsequently charitable individuals were induced to provide houses in which a certain number of indigent students might be lodged free of charge. In some cases they also received their board gratis, or had other allowances. This was the origin of the *collegie* or colleges, which in the two old English universities have risen into such importance. In the German universities something similar was introduced, namely, the *bursæ* (charitable establishments in which students could live for a very low rent). The name *bursæ* was also given to certain boarding-houses established by the professors for the use of the students. Those who lived in such *bursæ* were called *bursarii*; whence the German *Bursch*. The university of Bologna contests the palm of antiquity with that of Paris. It first became famous through the teaching of Irnerius in the early part of the 12th century. His lectures on Roman law attracted a great number of pupils, and he is considered to have originated a grand revolution in the legislation of Europe. His successors were men of ability; and for several centuries after, the university of Bologna continued to be celebrated for its legal learning, and to be flocked to by students from all parts. About 1220 it had 10,000 students, and in the middle of the 17th century the numbers had increased to 13,000. In Germany, as also in England, the earliest universities were founded on the model of that of Paris. The first universities founded in Germany were those of Prague, 1348, and Vienna, 1365. (For an account of the universities of Oxford, Cambridge, Edinburgh, Dublin, Durham, and Glasgow, see under these several heads; for that of London see below.)

UNIVERSITY COLLEGE, OXFORD.

—The oldest college in the University, traditionally supposed, with little authority, to have been founded by Alfred the Great, in 872. It was restored by William of Durham, rector of Wearmouth, who, in 1249, left a permanent endowment. The foundation consists of a master, 12 fellows, 18 scholars, the scholarships, tenable for five years, being worth £80. There are also six exhibitions, tenable for eighteen terms.

UNIVERSITY COLLEGE, LONDON.

—Originated in a scheme for establishing a university in the metropolis, first promulgated by Thomas Campbell, the poet, and others, in 1825. Their objects were—(1) to afford the inhabitants of London, at a moderate rate, the means of giving their sons a complete education; (2) to afford the benefits of a university education to the various classes of society in England who, not being members of the Church of England, were excluded in a greater or less degree from Oxford and Cambridge; and (3) to establish in the metropolis extended and systematic courses of education for professional pursuits, in laws, medicine, and civil engineering. Within a few months after the scheme was announced, sufficient funds were raised for setting it on foot, by subscriptions for £100 shares, and donations of £50. The foundation-stone of the building was laid 30th April, 1827, and before the close of 1828, the classes in the faculties of arts, law, and medicine were in full operation. The ex-

clusion of theology from the course of instruction gave rise to much opposition, and it was not till 1836 that a charter of incorporation was obtained. The entire management and direction of the affairs of the college are vested in the general meetings and council; the former consisting of the proprietors and donors (who are members for life), and the latter consisting of a president, vice-president, treasurer, and from sixteen to twenty-four other members elected by a general meeting. The senate is composed of all the professors of the college, and a president selected by them, out of three persons presented to them for that purpose by the general council. It has two faculties—one of arts and law, the other of medicine. Students are admitted without reference to their religious opinions, and without previous examination, except in the case of those under fifteen years of age. At the end of each session, examinations by means of printed papers are held, according to which the honours and prizes are awarded.

UNIVERSITY OF LONDON.—It was created by royal charter of William IV. in 1836, and confirmed by a new charter granted by Victoria in 1837. A supplementary charter was granted to it in 1849, and in 1856 a new charter revoked the previous ones, and established it on a more definite and extended basis. Its object was to encourage a regular and liberal course of education, by presenting the means to all classes and denominations of Her Majesty's subjects, without any distinction whatever, by offering to persons who prosecute or complete their studies in the metropolis or other parts of the kingdom, such facilities, and conferring upon them such distinctions, as may incline them to persevere in their laudable pursuits; and for the purpose of ascertaining by examination the persons who have acquired proficiency in literature, science, and art, by the pursuit of such course of education, and of rewarding them by academical degrees as evidence of their respective attainments. It is a great literary incorporation legalized for the purpose of testing the qualifications of young men who present themselves as candidates for literary or scientific honours, and of conferring the same on those found possessed of the necessary qualifications, irrespective of where or how acquired. It thus differs from the other universities, which only confer degrees on those who have been educated within their walls. The body politic, or corporate, consists of a chancellor, vice-chancellor, 36 fellows appointed by the crown, and by the members of the senate, and all persons holding any of the degrees of LL.D., M.D., M.A., LL.B., M.B., B.A. The chief officers are the chancellor, vice-chancellor, registrar, chairman of convocation, with the queen as visitor. There are two courts—the Senate and the Convocation. The former consists of the chancellor, vice-chancellor, and fellows, and is invested with the entire management and super-

intendence of the affairs, concerns, and property of the university. The Convocation consists of the graduates of the university; but those graduates only are entitled to vote whose names appear upon the register. Their powers are very limited, being chiefly confined to discussing and declaring their opinion upon matters connected with the university, but without having any right to interfere therein. The university is empowered to receive into connection with it such educational institutions in the United Kingdom and British colonies as furnish sufficient evidence that they communicate to young men such a course of instruction as to justify their being taken on examination. The senators also have the power (with consent of one of the principle secretaries of state) to admit persons not educated in any of the institutions connected with the university for matriculation, and as candidates for any of the degrees other than medical, on such conditions as shall from time to time be determined. The senators have the power, after examination, of conferring the several degrees of bachelor, master, and doctor in arts, laws, science, medicine, and music, and also in such other departments of knowledge, except theology, as they shall from time to time determine. The examinations are held at least once a year, and embrace such branches in the several departments as they shall consider necessary. By a recent decision of the Senate, female students are admitted to all the privileges and honours. The university was enfranchised by the Reform Act of 1867, and it returns one member to Parliament.

URN. (*See* VASES.)

UT, ut.—In Music, the first of the monosyllables employed by Guido, and still used by the French. The Italians, however, have substituted that of *do* for it, as much softer; an alteration which has also been adopted in this country.

"UTOPIA," *yu-to'-pe-a* (Gr., *outopos*, no place).—A name given by Sir Thomas More to an imaginary island which he represents as discovered by a supposed companion of Amerigo Vespucci, who describes it to More. By representing the inhabitants of this island as in the enjoyment of the utmost happiness, no one possessing private property, but all engaged in labour and having their wants supplied by the government, and living under the most perfect laws, he attempts to exhibit the defects of those laws, political institutions, &c., which then existed. The views which he advocates are often far in advance of his time, and the vices and absurdities of the period keenly satirized. The work was first printed in Latin, in 1516; but a more correct edition appeared in 1518. It was translated into English by Bishop Burnet. The word Utopia has now passed into most civilized tongues as denoting a state of ideal perfection; and Utopian is used as synonymous with fanciful or chimerical.

V.

V, ve, is the twenty-second letter of our alphabet, and is properly a consonant, being placed before vowels, as in *vacant, vibrate, venal, &c.* It is formed by the junction of the upper teeth with the lower lip, and a gentle expiration. It is the

middle labial aspirate, bearing the same relation to *f* that *p* does to *b*. The letters *u* and *v* had always two distinct sounds, but they had only one form till about the beginning of the 4th century, and it was not until about the 16th century

that the two letters came to be definitely distinguished. Even now *v* is frequently used instead of *u*, especially by architects. The Romans probably pronounced *v* like our *w*, which would account for the fact of there being no *w* in their language. In German, *v* has the sound of *f*, and *w* of *v*. *V* is interchangeable with *b* and *m*, and also with *f*. As a numeral it denotes 5, and with a dash over it 500. (See ABBREVIATIONS.)

“VADE-MECUM,” *vai'-de me'-kum* (Lat., go with me).—This title was first chosen for an ascetic work published at Cologne, 1790, entitled “Vade-mecum piorum Christianorum.” It is now not unfrequently applied to manuals or handbooks on scientific subjects, and pocket-books in which notes and cash accounts can be entered.

VAIR, *vair*.—One of the furs used in Heraldry, which formed the doublings and linings of the robes of kings and queens in former times. The colours are argent and azure.

VALENTINE DAY, *val'-en-tine*.—The 14th of February, taking its name from St. Valentine, who, according to the legend, was put to death at Rome under the Emperor Claudius. The custom of sending valentines (complimentary and gallant letters, some prepared with remarkable taste by manufacturers of fancy stationery, and also pretty presents in ornamental enclosures) on this day is very ancient, but there is no circumstance, so far as is known, in the life of the saint from which it could have originated. There is, however, a very old notion that “birds choose their mates and couple on this day.”

VALHALLA, or WALHALLA, *val-hal'-la*, *wal-hal'-la* (Norse).—In Scandinavian Mythology, the palace of immortality inhabited by the souls of heroes killed in battle. Hence a magnificent marble temple, erected by Ludwig I., king of Bavaria, near Regensburg, and adorned with statues of Germany's greatest men, is called by this name.

VALLARY CROWN, *val'-la-re*.—In ancient Rome a crown, formed of a circle of gold with palisades attached, was given to the soldier who, in a siege, first surmounted the enemy's outworks. A crown of this form occasionally appears in heraldic bearings.

VAMBRACED, *vam'-brased* (Fr., *avant-bras*, the fore-arm).—In Heraldry, a crest representing an arm, covered with armour and with a gauntlet, holding a sword between the hilt, point downwards.

VAMPIRE, *vam'-pire* (Gr., *vampyr*).—An imaginary demon, which was fabled to suck the blood of persons during the night. The belief in blood-sucking spectres, also called vampires, is very old. In 1732, great commotions were caused in Hungary, and particularly in Servia, by the general belief in human vampires, so that investigations were instituted by the government. The common people believed that the bodies of persons who died under sentence of excommunication, for sorcery or other crimes, did not decay, but devoured their own flesh, and during the night left their graves and sucked the blood of persons with whom they had been connected, so as to kill them.

VARANGIANS, *va-ran'-je-ans*.—A name given to northern pirates, who in the 9th

century invaded Flanders, France, and Italy. One of their leaders, Rurik, founded the Russian monarchy in 862.

VARIATIONS, *vair-e-ai'-shunz*.—Ornamental repetitions of an air or subject, constructed so as to show through a florid veil of execution the beauty and character of the parent melody.

VARRONIAN ERA, *var-ro'-ne-an*.—M. Terentius Varro, a celebrated Roman author, born B.C. 116, in a work entitled, “Antiquitatum Libri,” made the legends regarding the arrival of Æneas in Italy serve as an introduction to the early history and chronology of Rome, and by means of them determined the era for the foundation of that city (B.C. 753).

VASES, *va'-zes* (Lat., *vas*, a vase).—In the widest acceptance of the term, vessels intended to contain fluids or other substances, and made of various materials, the shapes varying from a cup or saucer to that termed a vase or urn, in the narrowest acceptance of the word. Vases were made use of for bowls, jugs, cruets for holding wine or oil, or for mixing wines, &c.; as well as, in the instance of the urn, for containing the ashes of the dead. Large vases of the precious metals, embellished with figures of animals or flowers, were manufactured by the Egyptians. The Assyrian vases were very similar in form to the Egyptian. In Greece, the artists gave to every vase the shape best adapted to its use and most agreeable to the eye. Very rich and precious substances were employed by those who could afford such profusion. Vases were frequently set up as prizes in the public games. A great number of these vases have been preserved to the present day, and offer to the artist the model of the most beautiful forms. The paintings upon these ancient Greek vases are extremely interesting, on account of the subjects represented, and of the beauty of the workmanship. Numerous specimens of the most general forms of the ancient vase—that made of baked earth—have been found all over Greece, Italy, and, indeed, throughout the settlements of Greece. Some were apparently for containing the ashes of the dead, others were for cups and vessels to hold liquids, whilst some were designed only for ornament. The Greeks also possessed, from the earliest ages, vases of gold, silver, and precious stones. The Etruscan vases were of clay turned upon a lathe and baked at a low temperature. Etruscan black ware was made of a clay mixed with oxide of iron and manganese, and polished upon the outside. Early Rome borrowed the model of vases, as well as the mode of making them, from Etruria. Later, vases upon the Greek model were universally used by the Romans for bowls, bottles, cups, dishes, urns for the ashes of the dead.

VAUDEVILLE, *vode'-vel* (Fr.).—A species of ballad or song, invented about the time of Francis I. by Oliver Bassell, a native of Vaudevere, a town in Normandy; hence the name. The term is now applied to a short dramatic piece, with songs.

VAUXHALL GARDENS, *vawks'-hall*.—A favourite pleasure resort at Lambeth, near the banks of the Thames, first known as Spring Gardens. The place is mentioned by Pepys, Wycherley, and Addison. For about a hundred years Vauxhall was the most fashionable resort

in the metropolis, and royal and distinguished personages, native and foreign, were among the visitors. The place gradually fell into decay, and after various spasmodic efforts to retain its attractions, was finally closed in 1859 and the site disposed of for building purposes.

VEGETARIANISM, *vej-et-air'-i-an-ism*.—A system of diet which has many advocates, who maintain that animal food is morally and physically injurious. The adoption of an exclusively vegetable diet found favour with several of the philosophers of antiquity. In 1847, a society of Vegetarians was established at Manchester. Few scientific physiologists support the theory, asserting that the structure of the human organs show that man is by nature omnivorous.

VEHICLE, *ve'-he-kl* (Fr.).—Is a term which includes any kind of carriage moving on land, either on wheels or runners, but more especially those on wheels. The most ancient vehicles are generally called chariots, and were chiefly used in war.

VENTRILOQUISM, *ven-tril'-o-kwizm* (Lat., *venter*, the belly, and *loquor*, I speak).—A term commonly applied to the art of making the voice appear to come from some distant place or object. It seems to consist in filling the lungs with air, and then employing the vocal organs of the throat in pronunciation with as little movement as possible of the lips, mouth, or tongue. It requires considerable powers of mimicry, and a good ear for sounds, and with these, and a little practice, considerable dexterity in this art may be attained. It is supposed by some commentators that the prophet Isaiah refers to ventriloquism (xxix, 4): "Thy voice shall be as of one that hath a familiar spirit, and thy speech shall whisper out of the dust."

VERB, *verb* (Lat., *verbum*, a word).—In Grammar, that part of speech in which a subject is conceived under certain relations of mood or mode, and tense or time. The verb is the most interesting, as it is also the most important, of the parts of speech. By means of changes or modifications, it expresses the various conditions of voice, mood, tense, number, and person. Verbs are active, passive, or neuter, according as they express doing, suffering, or a mere state or condition. They are transitive or intransitive, according as the action expressed by the verb passes, or does not pass, to an object. The latter comprise neuter and passive verbs. The moods or modes are the ways in which the predicate is brought into relation to the subject, whether it is given as necessary, real, or possible. These are the indicative, subjunctive, and imperative. The infinitive and participle are not strictly moods, though often classed as such. The tenses are those modifications of the verb by which time is denoted. The simple tenses are the present, past, and future; but most languages admit of other tenses, as the imperfect, plu-perfect, *paulo-post* future, &c. The numbers are the singular and plural (in Greek also the dual); and the persons are the first, second, and third, in both numbers: as I, thou, he, she, or it; we, you, they. As respects their origin, verbs are primitive or derivative. They are also regular or irregular, according as they conform to or deviate from certain rules.

VERSE. (See POETRY.)

VERSE, BLANK. (See BLANK VERSE.)

VERT, *vert*.—The French term for green, and in Heraldry the term used for that colour. It is expressed in engraving by diagonal lines drawn from the dexter chief to the sinister base.

VESSEL, *ves'-sel*.—A term having various significations. It is applied to a receptacle for liquids, to a ship, and, in anatomy and botany, to tubes or ducts.

VICTORIA CROSS.—An order of merit instituted in February, 1856, to reward soldiers and sailors of all ranks for especial acts of bravery. It is a Maltese cross made of the metal of Russian cannons captured at Sebastopol.

VICTORIA PARK.—A beautiful royal park of 290 acres at the east end of London, completed and opened in 1845.

VIGNETTE, *vin'-et* (Fr., little vine).—The term is now generally applied to engravings not enclosed in any definite border. Formerly it designated the tendril-like ornaments of the capital letters in old manuscripts, and head and tail pieces of a fanciful character in printed books.

VIKINGS, *vi'-kings*.—Scandinavian chiefs, Swedes, Danes, and Normans, who, as early as the 4th century, made piratical incursions into Britain and the countries around the Baltic.

VIOL, *vi'-ol* (Fr., *viole*).—A stringed instrument of music, which may be traced back to the 8th century, and which was, in all probability, the parent of all instruments of the violin kind.

VIOLIN, *vi-o-lin'* (Ital., *violino*).—An instrument of music played on by means of a bow, vulgarly called a fiddle, used at the present day in most parts of the world. Of its origin no certain knowledge can be obtained, some writers believing it to have existed at a very early period, while others assert it to be a comparatively modern invention. The history of the violin, for the last two hundred years, has been a direct contradiction to the doctrine of progress, for during that time, notwithstanding the many attempts that have been made to improve it, none have succeeded, and the instruments of the early makers, especially those of the brothers Amati and Stradivarius, at Cremona, are still considered by connoisseurs to be much finer both in tone and construction than those of modern makers. A violin consists of three chief parts—the neck, the table, and the sound-board. On the belly is a bridge to bear up the strings, which are four in number, and are stretched from one extremity, called the tail-piece, to the other, near the head, where they are secured to movable pegs, by which they may be tightened or loosened *ad libitum*. According to M. Otto (treatise on the Construction, &c., of the Violin), there are 58 distinct pieces employed in the construction of a first-rate instrument. So many pieces are not, however, indispensable, for in many common instruments the side linings and corner blocks are left out, while even in some good violins the back and belly each consist of one piece instead of two pieces joined together. The strings of the violin, made of catgut, are tuned in fifths, E, A, D, G; its compass extends three octaves, but the high sounds are anything but agreeable. The violin is adapted to every kind of music, and in the hands of a skilful performer is one of the most beautiful instruments we possess; but it is also one of the most difficult to beginners, and

requires years of study and practice to become even moderately proficient in its use.

VIOLONCELLO, *ve-o-lon-tshel'-lo* (Ital.).—An instrument of the violin kind, having four strings, the two lowest of which are covered with silver wire, and are tuned in fifths, A, D, G, and C. A violoncello is intermediate between the viola, or tenor violin, and the double-bass, being an octave lower than the former, and an octave higher than the latter. Its tone is rich and expressive, and although properly adapted to concerted music, it is, in the hands of first-rate performers, an effective solo instrument.

VIRGINAL, *vir'-jin-al*.—A keyed and stringed instrument, somewhat like the spinet, long since obsolete. It probably derived its name from being much used in convents in accompanying hymns to the Virgin.

VITAL STATISTICS.—The collection of information respecting births, deaths, diseases, &c.

VIVANDIERE, *vi-van'-de-aire*.—In the French and some other continental armies, a female attached to a regiment, who sells spirits and other refreshments, and performs kindly offices for the sick.

VOIDERS, *voy'-derz*.—In Heraldry, an ordinary resembling a flanch, but is not quite so circular towards the centre of the field.

VOLANT, *vo'-lant*.—In Heraldry, flying. A bird volant is represented flying towards the dexter side of the shield.

VOLUNTARY, *vol'-un-ta-re*.—A term ap-

plied to a composition for an extempore performance upon the organ for the purpose of relieving and embellishing divine service. The voluntary is so called because its performance or non-performance was formerly at the option of the organist.

VOLUME, *vol'-yume* (Lat., *volumen*; from *volvo*, I roll).—Literally, something rolled or convolved; and the term is commonly applied to a book, from the ancient custom of having books written on long rolls of parchments. Volume is also frequently used to signify the bulk, size, or solid contents of anything.

VOLUTE, *vo-lute'* (Fr.).—A kind of spiral scroll appended on each side to the capital of the Ionic order of architecture, of which it is the principal ornament. The Corinthian and Composite orders are also decorated with volutes; but their character is different, their size smaller, and they are always diagonally placed.

VOLUTIDÆ, *vo-lu'-ti-de*.—A family of gasteropodous molluscs, having a spiral shell beautifully marked. They abound in the tropical seas, and some small species are found on the British coast.

VOWEL, *vow'-el* (Lat., *vocalis*).—In Grammar, a letter which can be pronounced by itself, and is thus distinguished from a consonant, which cannot be sounded without the aid of a vowel. The sound of the vowels can be continued as long as the breath lasts; and hence they predominate in all natural expressions of the emotions. A diphthong consists of two vowels, the sounds of which run into one another.

W.

W is the twenty-third letter of our alphabet, and is, as its character and name both indicate, a double letter, its character being a double *v*, its name a double *u*, these two letters being identical in the Latin and in the more early form of the English language. It was not in use among the Greeks, Romans, or Hebrews, neither in the present day has it properly any place in French, Italian, Spanish, or Portuguese. It belongs chiefly to the Teutonic and Slavonic tongues. It is pronounced by opening the mouth with a rounding of the lips, and a somewhat strong emission of the breath. The sound of the French *ou* in *oui* pretty closely resembles the English *w*. In German, the sound of *w* resembles our *v*, as *warm*, pronounced *varm*; while with them *v* takes the sound of *f*, as *von*, pronounced *fon*. *W* partakes both of the character of a vowel and a consonant, being regarded as a consonant at the beginning of words and syllables, and a vowel in all other positions.

WADHAM COLLEGE, OXFORD, *wad'-ham*.—In 1610, in conformity with the will of Nicholas Wadham, a college was founded on the site of the ruined priory of Austin Friars, for a warden, 15 fellows, 15 scholars, and 2 chaplains. There were various limitations as to the election of fellows and the scholarships; but by 17 and 18 Vict. c. 81, they are thrown open. The number of fellowships is now 14; the scholarships, tenable for five years, are worth £30 a year; and there are several exhibitions

for Hebrew, Greek, law, and medicine, varying in annual value from £50 to £90. The college has 13 livings in its gift.

WAITS, *waits* (Ger., *wachen*, to watch).—The name given to those itinerant musicians who, in London and some of the other large towns of England, go about at night for some weeks before Christmas, playing two or three tunes, and calling the hour. They are believed to represent the ancient musical watch, that in some of the larger towns were employed in piping the watches; and afterwards the term was applied to the bands of musicians that were kept by some of the larger cities and towns.

WALHALLA. (See VALHALLA.)

WALTZ, *waults*.—A popular dance, the music for which is generally written in $\frac{3}{4}$ or $\frac{3}{8}$ time, and played moderately slow, or, at the quickest, *allegretto*.

WAMPUM, *wom'-pum*.—The shell-beads used for ornament and currency by some of the northern tribes of American Indians.

WANDERING JEW. (See JEW, THE WANDERING.)

WATER BUDGET.—In Heraldry, a heraldic bearing in the form of a yoke with two pouches suspended from it, to represent the method adopted by the Crusaders to convey water across the desert.

WATER-COLOUR PAINTING.—The ancients used water as the only medium to bind their colours. Miniatures were also usually painted in water-colours. Water-colour painting, which was in general use until the 15th century, was partially abandoned when Van Dyck, about that period, introduced oil as a medium for mixing his colours. Nevertheless, water-colours, by reason of the convenience in working them, were retained for mural paintings or frescoes, as well as for theatrical scenery. In its strictest and modern sense, water-colour painting means the painting on paper with colours diluted with water. The Dutch and Italian masters used water-colours to make their sketches, and to produce their finished cartoons, but they never employed this method for their completed pictures. We have preserved to us examples of this use of water-colours in the cartoons of Raffaele, these paintings having been executed as models, either for the weaving of tapestries or for the preliminary studies for large pictures afterwards painted in oil-colours. With respect to the rise of the English school of water-colour painting, the first works of Paul Sandby claim to be considered the precursors of all others in this line. In the early exhibitions of the Royal Academy, they were called in the catalogues "stained drawings." The practice was at first to make out the entire drawing in light and shade, by successive washes of Indian ink, or of a neutral tint. Afterwards, the various local colours were passed over this ground, in thin washes of transparent colours. Finally, the sharp outlines and minute details were put in with a reed pen. Though these early works had frequently a cold, feeble appearance, yet they were distinguished when they came from the hands of Turner, Girtin, Prout, and Cozens, for their charming atmospheric effects. After the general adoption of this new method, the progress of the art came to be very rapid. The foremost water-colour artists of the day established themselves into a "Society of Painters in Water Colours" in 1805; and every year a display of the members' works was given at their rooms in Pall Mall. So rapidly did this body grow, that another association sprang from it in 1832, under the name of the "New Society of Painters in Water Colours." This latter body has likewise its yearly exhibition.

"WAVERLEY NOVELS," *wai'-ver-le*.—The popular name of the splendid series of works of fiction, published anonymously, by Walter Scott, beginning with "Waverley; or, 'Tis Sixty Years Since," issued in 1814, and terminating with the fourth series of "Tales of my Landlord," published in 1831. Scott acknowledged the authorship at a public dinner at Edinburgh, on the 23rd of February, 1827.

WAX PAINTING. (*See ENCAUSTIC PAINTING.*)

WAYWODE, *way'-wode* (Slavonic, *woy*, war, and *wodzie*, to lead).—A title formerly borne in the Slavic countries of south-eastern Europe by military leaders, who were also frequently governors of provinces; hence, as in Poland, styled waywodeships.

WEDNESDAY, *wedns'-day* (Ang.-Sax., *Wodanes dag*).—The fourth day of the week. The name is derived from Woden, or Odin, of the Scandinavian mythology. It is the *Dies Mercurii* of the Romans.

WEEK, *week* (Sax., *weoc*).—A well-known division of time, which appears to have prevailed very extensively over the world from the very earliest times. It constitutes the fourth part of a lunar or natural month; and it is also more nearly than any other short term would be an aliquot part of the solar year of 365 days. Its origin is generally attributed to the Egyptians. It is not a little remarkable that the several days of the week were named after the sun and six planets, not only among the ancient Greeks, Romans, and Egyptians, but also the Indians and Chinese.

WELSH LANGUAGE, AND LITERATURE.—The Welsh language belongs to the later, or Cymric branch of the two divisions of the Celtic language, the other being the Gaelic. Some Welsh writers have maintained that it is the oldest language in the world; but in this case patriotic feeling has been stronger than philological knowledge. It is certain, however, that the literature of Wales reaches back to remoter times than that of any modern language, except the Irish; and Welsh is not dying out, as Gaelic is, but is maintained as a spoken language by large numbers of Welsh people. A peculiarity of the Welsh tongue is the abundance of grammatical changes, and the number of derivations, and compounds formed by almost innumerable methods. The language exhibits in phraseology, and the structure of sentences, a certain stateliness which makes it suitable to poetic compositions of a rhetorical and high-flown character. The oldest treatise on Welsh grammar and prosody was composed by Geraint as early as about 880 A.D., a version by Einion 300 years afterwards being authoritatively adopted as a standard work. Metrical productions attributed to Taliesin, the famous Myrddhin (or Merlin), and others, are supposed to date from the 6th and 7th centuries, but it has been almost proved that many of these so-called authentic productions are spurious and of a considerably later date. The oldest known specimen of Welsh prose is the collection of the law of King Hywel Dda. The date of its compilation is uncertain, the oldest extant manuscript having been written in the 12th century. About 1100 there was a new development of Welsh literature, stimulated by the assembly of a great number of bards and musicians, many of them from Ireland, at Caerwys in North Wales, and for three hundred years afterwards Welsh bards were very numerous, and the slaughter of them by Edward I. of England, because they were supposed to stimulate by their warlike and enthusiastic poems their countrymen to heroic exertions to maintain their independence, is a well-known historical fact. Early in the 12th century, Welsh chroniclers wrote, in a more or less authentic manner, the annals and traditions of their native country, and of the national hero Arthur and the wizard Merlin. (*See ARTHURIAN LEGENDS.*) The Welsh were among the earliest to accept the doctrines of the Reformation, and translations of portions of Scripture; and in 1588 of the entire Bible, into the Welsh tongue were printed. In the 17th and 18th centuries, many works, especially metrical, appeared, some of them of great merit, and some of the prose writers exhibited admirable qualities of style. In more recent times the attention of Welsh authors has been in a great measure turned to archæological and philological researches, the preparation of dictionaries and

grammars, and the editing of ancient works in the Welsh language. There are several periodicals mostly of a religious character, circulating among the Welsh-speaking population.

WHIST.—A game at cards, partly of chance, partly of skill—the most scientific and popular of all amusements of the kind, demanding for successful playing qualities scarcely inferior to those exhibited by an accomplished chess-player. A game known as *trump*, or *triumph*, was played in England in the 16th century, and is referred to by Shakespeare, who, in *Antony and Cleopatra*, makes Antony exclaim:—

"She, Eros, has
Packed cards with Caesar, and false played my glory
Unto an enemy's triumph."

Cotton, the author of "The Complete Gamester," says the game of whist was so named from the silence observed by the players, the word "whist" being commonly understood to mean "keep silence;" and in Johnson's Dictionary this explanation of the origin of the name is accepted. There are two modes of the game—*Long whist* (now old-fashioned and rarely played) and *Short whist*, now played at the clubs and in general favour. At long whist, ten must be scored to win the game; at short whist, five. In either case the game is played by four persons, two being partners against the other two. The cards are cut for partners, the highest two playing against the lowest, the player who cuts the lowest card dealing. The cards being dealt, thirteen to each player, the last is shown on the table and indicates the trump suit. The player on the left hand of the dealer leads a card, and the others having played, being compelled to follow suit if able to do so, the highest wins the trick and leads for the rest. After all the cards have been played, the tricks are reckoned, only those above six being counted in the score. The ace and court cards of the trump suit are called "honours." When each side has two, they go for nothing; but if one side holds three of these cards, two reckon in the score, and if all four are held, they count as four, except when, at long whist, the holders have already scored nine, or at short whist, four, in both of which cases honours cannot be counted. A "rubber" consists of the best two games out of three; but if the same side wins two consecutive games, the third is not played.

WIG (from French, *perruque*, corrupted in English to *periwig*, and then shortened to the present form of the word).—An artificial covering for the head, as a substitute for the natural hair; also a construction of curled horse-hair, now worn almost exclusively as a portion of the professional costume of judges and barristers, and, until a recent period, of bishops. The wig with long curls, so fashionable in the Stuart times, was introduced into this country by Charles II. after the Restoration. A wig of this kind sometimes costs as much as £130 or £140. About 1670, clergymen adopted wigs, and until the early part of the present century, elderly men, especially if belonging to the "learned classes," considered the wearing of a closely-fitting wig (or busby) as a mark of respectability and professional position. George III. commenced his reign by wearing his own hair, dressed and powdered in the style of Woollett's engraving of his Majesty, after a picture painted by Romney. In the latter part of his reign, when he was really growing bald,

the king wore a brown wig of small dimensions, known popularly a century ago as "brown George." His wig and accompanying pigtail are faithfully represented in the equestrian statue of the king, at the end of Cockspur Street, Pall-Mall. The earliest engraved portraits of Dr. Johnson exhibit a wig with five rows of curls, which was commonly called a "storey" wig; and many of the dandies of the days of the American Revolution wore their wigs nine "storeys" high. Wigs are of great antiquity. An Egyptian wig, preserved in the British Museum, is known to be about 4,000 years old; and some of the Persian monarchs and Roman emperors wore wigs. That of the Emperor Commodus was highly perfumed and sprinkled with gold-dust.

WILD HUNTSMAN.—The subject of many romantic legends prevalent in Germany, where it is still believed in some of the more rural and secluded districts, that the shouting of huntsmen, the barking of dogs, and the rush of horses may be heard at night. The wild huntsman himself is represented as mounted on horseback, with a hat shading his face, and a large cloak, and accompanied by the ghosts of suicides, drunkards, and others who have died in their sins, in some cases mutilated, and others headless. There are many varieties of the legend.

WIT, *wit* (Ger., *witz*).—One of those words that have passed through a variety of significations since they first came into use. Originally wit was synonymous with wisdom; and hence the Saxon parliament was called the *witenagemote*, or assembly of wise men. Even now we speak of a person being out of his wits who is of unsound mind. According to Locke, "Wit lies most in the assemblage of ideas, and putting those together with quickness and variety wherein can be found any resemblance or congruity, thereby to make up pleasant pictures and agreeable visions in the fancy:" to which Addison adds, by way of explanation, "that every resemblance of ideas is not that which we call *wit*, unless it be such an one that gives delight and surprise to the reader: these two properties seem essential to wit, especially the last of them."

WONDERS OF THE WORLD. (*See SEVEN WONDERS OF THE WORLD.*)

WRANGLER, *rang'-gler*.—Literally, a contentious disputant, but in the University of Cambridge, the term is applied to students who have attained the first class in the mathematical honour, examination with honour, from the circumstance of their having at one time to oppose or defend a thesis in public. The students who pass their B.A. examination with honour are divided into three classes,—wranglers, junior optimes, and senior optimes, constituting the mathematical tripos. The first in merit of the wranglers is known as senior wrangler, and is the most distinguished mathematical student of his year. (*See CAMBRIDGE, UNIVERSITY OF.*)

WRITING.—The art of making letters and symbols serve as a means of recording and transmitting thought. (*See ALPHABET and HIEROGLYPHICS.*)

WYNTOUN'S CHRONICLE.—A metrical history with the title, "*Orygynale Cronykil*," written by Andrew of Wyntoun, prior of the

monastery of St. Serf's Insh, in Lochleven. The chronicle was written in the early part of the 15th century. It consists of nine books, the first five being occupied with the history of the world generally; the remaining four with Scottish and British history, forming a valuable record of

many important transactions. The best manuscript is in the British Museum.

WYVERN, *wi'-vern*.—In Heraldry, the representation of a fictitious monster, a combination of the dragon and the eagle.

X.

X, *eks*, is the twenty-fourth letter of our alphabet, and is a double consonant, having the sound of *ks*. We have derived it from the Greek through the Latin, in which it was the final letter of the alphabet. The Italians never use it, but employ instead *ss*, or when it immediately precedes *c*, another *c*, as in *eccellente*. The Germans commonly in place of *x* use *ks*, *gs*, or *chs*; as *fuchs*, a fox. In French *x* has a variety of pronunciations, as *s*, *cs*, *gz*, and *z*. This letter interchanges with *s*, *sc* or *sk*, *g*, *ps*, *h*, and *z*. *X* with the Romans, denoted 10, as being composed of two Vs; when placed thus \times it signified 1,000, and with a dash over it, 10,000.

XENOPHON, HISTORIES BY, *zen'-o-*

fon.—This distinguished Greek historian was born at Athens about the middle of the 5th century before the Christian era. His chief work was the *Anabasis* (which *see*), "*Memorabilia*," an account of the life and teaching of Socrates, and generally considered to be the author's most important work; the "*Apology*," or the "*Symposium*," also relating to Socrates, whose pupil Xenophon had been. The "*Hellenics*" refers to a portion of Greek history. A fictitious biography of Cyrus of Persia, the "*Cyropædia*," is a medium of eulogizing the philosophy of Socrates and the institutions of Sparta. He also wrote treatises on military subjects, the horse, and household management.

Y.

Y, *wi*, is the twenty-fifth letter of the English alphabet, and is used sometimes as a vowel and sometimes as a consonant. It is a consonant at the beginning of words, when it is produced by the emission of the breath, whilst the root of the tongue is brought into contact with the hinder part of the palate, and the edges of the tongue pressed against the roof of the mouth. At the end of words it is a vowel, and has exactly the sound of *i*. In the middle of words *i* usually takes the place of *y*; but where it occurs it has the same sound. In English the sound of *y* is usually given to a word beginning with a long *u*, as *union*, *unity*. In numerals *Y* represented 150, and with a dash over it 150,000.

YALE COLLEGE.—One of the oldest and most famous of the educational institutions of the United States. It was established in 1701 in conformity with a charter given by the General Assembly of Connecticut. The college was removed from Saybrook, where it was first established, to New Haven, in 1716, and two years afterwards took the name of Yale College in recognition of benefactions received from Elijah Yale, a Londoner. In 1745, a new charter was granted, and in 1871 some alterations were made in the constitution of the college. It is governed by trustees, among whom are the president of the college, the governor and lieutenant-governor of Connecticut, and ten congregational clergymen. There are generally about a thousand students, and the libraries contain nearly 120,000 volumes. The Peabody Museum, in connection, was founded in 1866.

YANKEE, *yan'-ke*.—A word said to be a corruption of the word English, pronounced by

the Indians *Yengeese*, and is now the popular name for the New Englanders in America, but frequently applied in this country to all inhabitants of the United States.

"*Yankee-Doodle*."—The name given to a tune which, before the adoption of "*Hail Columbia*," was the national air of the United States. It originated in 1755, when the British colonies in America contributed their several quotas of men to aid the British army in reducing the French power in Canada. Their ranness and awkwardness became the sport of the British army, and an English physician named Shackburg composed a tune, recommending it, by way of joke, to the Americans, and it immediately became celebrated. It is asserted by some musical antiquaries, that the air was popular in England in the time of Cromwell; and others say it was the tune of an old English song, "*Lydia Locket lost her pocket*."

YEAR, *vere*.—That period comprised in the revolution of the earth around the sun. In ancient times, when it was believed that the sun moved about the earth, this period was termed the *solar year*. Accepting the authority of Herodotus, the Egyptians were the first who ascertained the length of the solar year. They divided it into twelve months, each month consisting of thirty days. The Greeks more accurately divided the year into 365½ days, and the Grecian astronomer Sosigenes made this the foundation of the Julian calendar. (See CALENDAR.)

YULE (derivation uncertain; but in many of the Scandinavian and other northern languages there are words similar in sound).—An old name, still in common use in some very rural and secluded districts, and in especial favour with writers of Christmas stories and poems, and designers of Christmas pictures. (See CHRISTMAS.)

Z.

Z, zed.—The twenty-sixth and last letter of the English alphabet. It is a sibilant or hissing letter, and the only difference in pronunciation between it and *s* is, that the breath is emitted more forcibly in the case of the latter; the organs of the mouth are in the same position in both cases. This letter is derived from the Greek, in which language it occupies the sixth place in the alphabet, and some have supposed that with them it had the sound of our *g*; as we find in the Scotch name *Menzies*, pronounced *Ming-es*. In German the *z* has a compound sound, corresponding to our *ts*; and in Italian it is sounded sometimes like *ts*, sometimes like *ds*. In Spanish it has the sound of *th*; and in French, when sounded at all, like a forcible *s*. It interchanges with *d*, *g*, *i*, *j*, *s*, *t*, *y*. As a numeral it signifies 2,000, and with a dash over it, 2,000,000. Lately, the letter *z* has been to a great extent superseded by the letter *s*, which in so many words has the *z* sound; and orthographers are very much puzzled to say when the latter letter should be

retained. In some words (as in that just used, "puzzled"), *s* could not replace it.

ZENANA, *ze-na'-na* (Persian, belonging to women).—That part of the house which Hindoos of good caste set apart for the use of women. Formerly no Christian woman was permitted to enter a zenana in Bengal, but now they are more freely opened, and lady missionaries and medical practitioners are allowed access, and the inmates are systematically instructed by native, European, and American ladies.

ZOUAVES, *zwavs*.—A body of infantry in the French army, formed in 1830, at the time of the war with Algiers, and consisting of native Kabyles, with an interfusion of Frenchmen. The African element has long since disappeared, and now the Zouaves are French soldiers wearing a Moorish uniform, except in the case of the officers, who wear uniforms similar to those of the hussars. The Zouaves are all picked men, selected for courage and hardihood.

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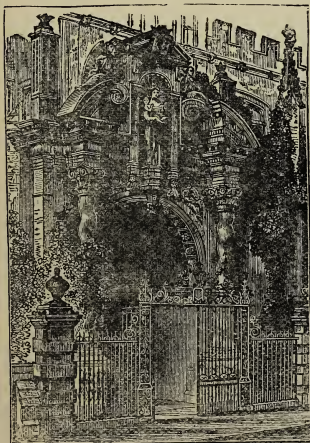
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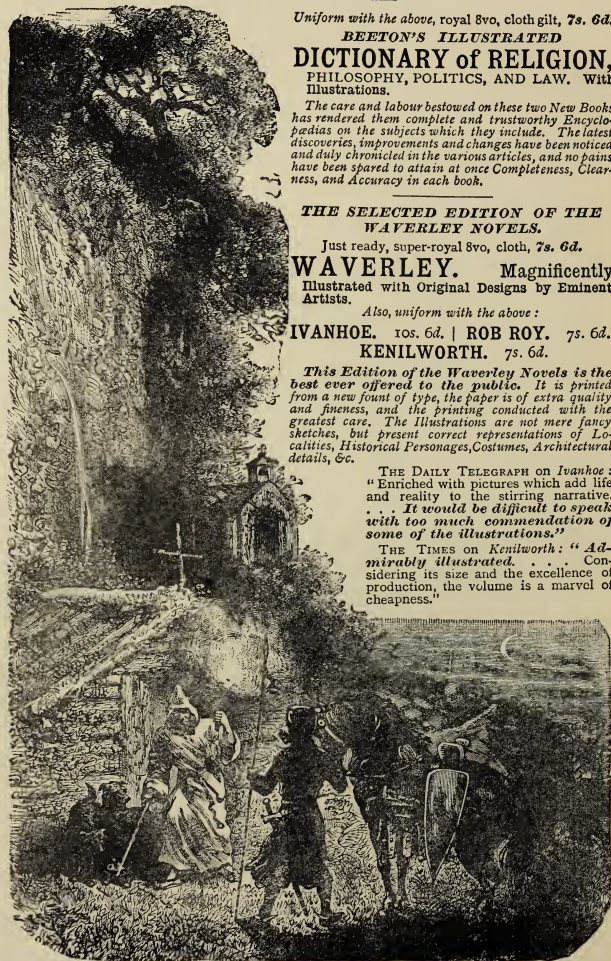
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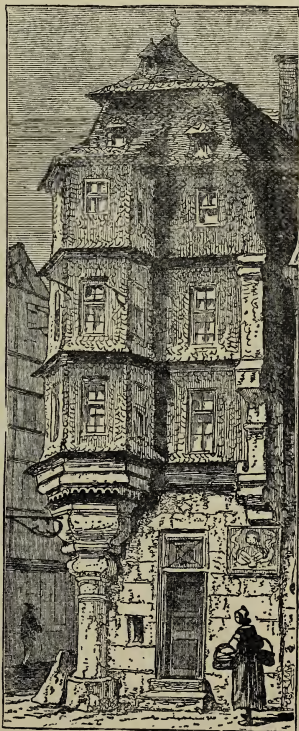
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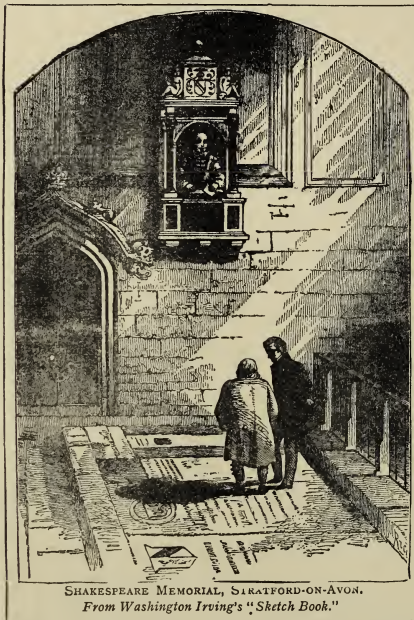


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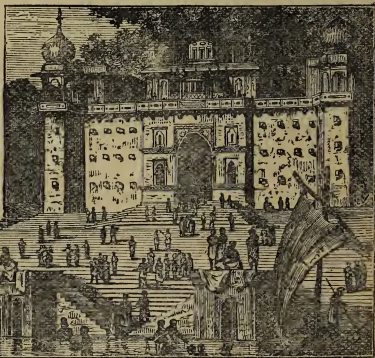
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